```
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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  NOV 21  CAS patent coverage to include exemplified prophetic
                  substances identified in English-, French-, German-,
                  and Japanese-language basic patents from 2004-present
 NEWS  3  NOV 26  MARPAT enhanced with FSORT command
 NEWS  4  NOV 26  CHEMSAFE now available on STN Easy
 NEWS  5  NOV 26  Two new SET commands increase convenience of STN
                  searching
 NEWS  6  DEC 01  ChemPort single article sales feature unavailable
 NEWS  7  DEC 12  GBFULL now offers single source for full-text
                  coverage of complete UK patent families
 NEWS  8  DEC 17  Fifty-one pharmaceutical ingredients added to PS
 NEWS  9  JAN 06  The retention policy for unread STNmail messages
                  will change in 2009 for STN-Columbus and STN-Tokyo
 NEWS 10  JAN 07  WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
                  Classification Data

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
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  of commercial gateways or other similar uses is prohibited and may
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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 19:02:29 ON 27 JAN 2009

=> file casreact
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.22       0.22

FILE 'CASREACT' ENTERED AT 19:02:38 ON 27 JAN 2009
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)
```

FILE CONTENT:1840 - 25 Jan 2009 VOL 150 ISS 5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

```
************************************************************
*                                                          *
*     CASREACT now has more than 16.5 million reactions    *
*                                                          *
************************************************************
```


This file contains CAS Registry Numbers for easy and accurate substance
identification.

=>
Uploading C:\Program Files\Stnexp\Queries\10669424.str

chain nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
1-2 2-3 2-4 4-5 6-7 7-8 7-9 9-10
exact/norm bonds :
1-2 2-3 4-5 6-7 7-8 9-10
exact bonds :
2-4 7-9

G1:COOH,CN,Cb,Cy,Ak

Match level :
1:Atom 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:Atom 7:CLASS 8:CLASS 9:CLASS
10:CLASS
fragments assigned product role:
containing 6
fragments assigned reactant/reagent role:
containing 1

L1 STRUCTURE UPLOADED

```
=> d l1
L1 HAS NO ANSWERS
L1              STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.


=> s l1 full
FULL SEARCH INITIATED 19:03:05 FILE 'CASREACT'
SCREENING
SCREENING COMPLETE - 13921977 REACTIONS TO VERIFY FROM   569170 DOCUMENTS

  3.4% DONE  475886 VERIFIED     121 HIT RXNS (     6 INCOMP)       32 DOCS

  6.6% DONE  920864 VERIFIED     243 HIT RXNS (    10 INCOMP)       68 DOCS

  7.2% DONE 1000000 VERIFIED     267 HIT RXNS (    10 INCOMP)       73 DOCS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.01.16

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **INCOMPLETE**
PROJECTED VERIFICATIONS:  13921977 TO 13921977
PROJECTED ANSWERS:            1227 TO     1445

L2            73 SEA SSS FUL L1 (   267 REACTIONS)

=>

=> d ibib abs fhitstr tot
'FHITSTR' IS NOT A VALID FORMAT FOR FILE 'CASREACT'

The following are valid formats:

ABS -------- GI and AB
ALL -------- BIB, AB, IND, RE, Single-step Reactions
APPS ------- AI, PRAI
BIB -------- AN, plus Bibliographic Data
CAN -------- List of CA abstract numbers without answer numbers
CBIB ------- AN, plus Compressed Bibliographic Data
DALL ------- ALL, delimited (end of each field identified)
IABS ------- ABS, indented with text labels
IALL ------- ALL, indented with text labels
IBIB ------- BIB, indented with text labels
IND -------- Indexing data
IPC -------- International Patent Classifications
ISTD ------- STD, indented with text labels
OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

MAX -------- Same as ALL
PATS ------- PI, SO
SCAN ------- TI and FCRD (random display, no answer number.  SCAN
             must be entered on the same line as DISPLAY, e.g.,
             D SCAN.)
SSRX ------- Single-Step Reactions (Map, Diagram, and Summary for
             all single-step reactions)
```

```
STD -------- BIB, IPC, and NCL

CRD -------- Compact Display of All Hit Reactions
CRDREF ----- Compact Reaction Display and SO, PY for Reference
FHIT ------- Reaction Map, Diagram, and Summary for first
             hit reaction
FHITCBIB --- FHIT, AN plus CBIB
FCRD ------- First hit in Compact Reaction Display (CRD) format
FCRDREF ---- First hit in Compact Reaction Display (CRD) format with
             CA reference information (SO, PY).  (Default)
FPATH ------ PATH, plus Reaction Summary for the "long path"
FSPATH ----- SPATH, plus Reaction Summary for the "short path"
HIT -------- Reaction Map, Reaction Diagram, and Reaction
             Summary for all hit reactions and fields containing
             hit terms
OCC -------- All hit fields and the number of occurrences of the
             hit terms in each field.  Includes total number of
             HIT, PATH, SPATH reactions. Labels reactions that have
             incomplete verifications.
PATH ------- Reaction Map and Reaction Diagram for the "long
             path".  Displays all hit reactions, except those
             whose steps are totally included within another hit
             reaction which is displayed
RX --------- Hit Reactions (Map, Diagram, Summary for all hit reactions)
RXG -------- Hit Reaction Graphics (Map and Diagram for all hit reactions)
RXL -------- Hit Reaction Long (Map, Diagram, Summary for all hit reactions)
RXS -------- Hit Reaction Summariers (Map and Summary for all hit reactions)
SPATH ------ Reaction Map and Reaction Diagram for the "short
             path".  Displays all single step reactions which
             contain a hit substance.  Also displays those
             multistep reactions that have a hit substance in both
             the first and last steps of the reaction, except for
             those hit reactions whose steps are totally included
             within another hit reaction which is displayed

To display a particular field or fields, enter the display field
codes.  For a list of the display field codes, enter HELP DFIELDS
at an arrow prompt (=>).  Examples of combinations include: D TI;
D BIB RX; D TI, AU, FCRD.  The information is displayed in the same order
as the specification.  All of the formats, except CRD, CRDREF, FHIT, PATH,
FPATH, SPATH, FSPATH, FCRD, FCRDREF, HIT, RX, RXG, RXS, SCAN, and OCC, may
be used with the DISPLAY command to display the record for a specified
Accession Number.

ENTER DISPLAY FORMAT (FCRDREF):ibib
```

L2 ANSWER 1 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 150:35683 CASREACT
TITLE: Preparation of dipeptide epoxide derivatives as cysteine proteases inhibitors
INVENTOR(S): Gonzalez Adelantado, Florenci Vicent; Rodriguez Pastor, Santiago; Izquierdo Ferrer, Javier
PATENT ASSIGNEE(S): Universitat Jaume I, Spain
SOURCE: PCT Int. Appl., 37pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008152178	A1	20081218	WO 2008-ES70116	20080612
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
ES 2310143	A1	20081216	ES 2007-1717	20070615

PRIORITY APPLN. INFO.: ES 2007-1717 20070615
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:555769 CASREACT
TITLE:	Diazo ketone cyclization onto a benzene ring: 3,4-dihydro-1(2H)-azulenone
AUTHOR(S):	Scott, Lawrence T.; Sumpter, Chris A.
CORPORATE SOURCE:	Univ. Nevada, Reno, NV, USA
SOURCE:	Organic Syntheses (1990), 69, No pp. given CODEN: OSRYAV URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER:	John Wiley & Sons, Inc.
DOCUMENT TYPE:	Journal; General Review; (online computer file)
LANGUAGE:	English

L2 ANSWER 3 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:555124 CASREACT
TITLE:	Asymmetric aldol reactions using boron enolates
AUTHOR(S):	Cowden, Cameron J.; Paterson, Ian
CORPORATE SOURCE:	University Chemical Laboratory, Cambridge, UK
SOURCE:	Organic Reactions (Hoboken, NJ, United States) (1997), 51, No pp. given CODEN: ORHNBA URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER:	John Wiley & Sons, Inc.
DOCUMENT TYPE:	Journal; General Review; (online computer file)
LANGUAGE:	English

L2 ANSWER 4 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555118 CASREACT
TITLE: Reductions by metal alkoxyaluminum hydrides. Part II. Carboxylic acids and derivatives, nitrogen compounds, and sulfur compounds
AUTHOR(S): Malek, Jaroslav
CORPORATE SOURCE: Czech. Acad. Sci., Prague, Czech.
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1988), 36, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 5 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:555090 CASREACT
TITLE:	Asymmetric epoxidation of allylic alcohols: The Katsuki-Sharpless epoxidation reaction
AUTHOR(S):	Katsuki, Tsutomu; Martin, Victor
CORPORATE SOURCE:	Kyushu University, Japan
SOURCE:	Organic Reactions (Hoboken, NJ, United States) (1996), 48, No pp. given CODEN: ORHNBA URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER:	John Wiley & Sons, Inc.
DOCUMENT TYPE:	Journal; General Review; (online computer file)
LANGUAGE:	English

L2 ANSWER 6 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555081 CASREACT
TITLE: Reductions by metal alkoxyaluminum hydrides
AUTHOR(S): Malek, Jaroslav
CORPORATE SOURCE: Institue of Chemical Process Fundamentals, Prague, Czech.
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1985), 34, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 7 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:533325 CASREACT
TITLE: Ethyl (E,Z)-2,4-decadienoate
AUTHOR(S): Tsuboi, S.; Masuda, T.; Mimura, S.; Takeda, A.
CORPORATE SOURCE: Okayama Univ., Okayama, Japan
SOURCE: Organic Syntheses (1988), 66, No pp. given
CODEN: OSRYAV
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 8 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:513168 CASREACT
TITLE: Diastereoselective formation of trans-1,2-disubstituted cyclohexanes from alkylidenemalonates by an intramolecular ene reaction: dimethyl (1'R,2'R,5'R)-2-(2'-isopropenyl-5'-methylcyclohex-1'-yl)-propane-1,3-dioate
AUTHOR(S): Tietze, L. F.; Beifuss, U.
CORPORATE SOURCE: Georg-August-Univ., Goettingen, Germany
SOURCE: Organic Syntheses (1993), 71, No pp. given
CODEN: OSRYAV
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 9 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:512887 CASREACT
TITLE:	2,3-Dihydropyran
AUTHOR(S):	Sawyer, R. L.; Andrus, D. W.
CORPORATE SOURCE:	USA
SOURCE:	Organic Syntheses (1943), 23, No pp. given CODEN: OSRYAV URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER:	John Wiley & Sons, Inc.
DOCUMENT TYPE:	Journal; General Review; (online computer file)
LANGUAGE:	English

L2 ANSWER 10 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:512458 CASREACT
TITLE:	Enantioselective reduction of ketones
AUTHOR(S):	Itsuno, Shinichi
CORPORATE SOURCE:	Toyohashi University of Technology, Toyohashi, Japan
SOURCE:	Organic Reactions (Hoboken, NJ, United States) (1998), 52, No pp. given CODEN: ORHNBA URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER:	John Wiley & Sons, Inc.
DOCUMENT TYPE:	Journal; General Review; (online computer file)
LANGUAGE:	English

L2 ANSWER 11 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:315708 CASREACT
TITLE: Pure DNT-maleate, methods of preparation thereof, and use for pharmaceutical formulations
INVENTOR(S): Ini, Santiago; Abramov, Mili
PATENT ASSIGNEE(S): Israel
SOURCE: U.S. Pat. Appl. Publ., 16pp., Cont.-in-part of U.S. Ser. No. 809,730.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080207923	A1	20080828	US 2007-981318	20071030
US 20070185192	A1	20070809	US 2006-525336	20060921
US 20070281989	A1	20071206	US 2007-809730	20070531
EP 1976846	A2	20081008	EP 2007-795573	20070531
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
MX 2008001519	A	20080829	MX 2008-1519	20080130

PRIORITY APPLN. INFO.:
US 2005-719880P 20050922
US 2006-761583P 20060123
US 2006-771069P 20060206
US 2006-809977P 20060531
US 2006-525336 20060921
US 2007-809730 20070531
WO 2007-US12892 20070531

L2 ANSWER 12 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:307616 CASREACT

TITLE: Design and synthesis of novel indole derivatives as anticancer agents

AUTHOR(S): Shi, Chang-qing; Lin, Wen-qing; Chen, Yuan-wei

CORPORATE SOURCE: Key Laboratory of Asymmetric Synthesis and Chirotechnology of Sichuan Province and Union Laboratory of Asymmetric Synthesis, Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences, Chengdu, 610041, Peop. Rep. China

SOURCE: Hecheng Huaxue (2007), 15(4), 454-458
CODEN: HEHUE2; ISSN: 1005-1511

PUBLISHER: Hecheng Huaxue Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

L2 ANSWER 13 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:307082 CASREACT
TITLE: (R)- & (S)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl
AUTHOR(S): Kitamura, Masato; Noyori, Ryoji; Tsukamoto, M.
CORPORATE SOURCE: Japan
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 14 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:306817 CASREACT
TITLE: Zinc Borohydride
AUTHOR(S): Oishi, Takeshi; Nakata, Tadashi
CORPORATE SOURCE: Japan
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 15 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:306813 CASREACT

TITLE: (Bicyclo[2.2.1]hepta-2,5-diene)[1,4-bis(diphenylphosphino)butane]rhodium(I) Tetrafluoroborate

AUTHOR(S): Evans, David A.; Miller, Scott J.; Brown, John M.; Layzell, Timothy P.; Ramsden, James A.

CORPORATE SOURCE: USA

SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME

DOCUMENT TYPE: Conference; General Review; (online computer file)

LANGUAGE: English

L2 ANSWER 16 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:306706 CASREACT

TITLE: (4aR)-(4aa,7a,8ab)-Hexahydro-4,4,7-trimethyl-4H-1,3-benzoxathiin

AUTHOR(S): Lynch, Joseph E.

CORPORATE SOURCE: USA

SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME

DOCUMENT TYPE: Conference; General Review; (online computer file)

LANGUAGE: English

L2 ANSWER 17 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:288720 CASREACT

TITLE: Preparation of tricyclic imidazopyridines by asymmetric ketone hydrogenation in the presence of RuCl2[(S)-Xyl-P-Phos][(S)-DAIPEN]

AUTHOR(S): Palmer, Andreas Marc; Zanotti-Gerosa, Antonio; Nedden, Hans

CORPORATE SOURCE: Department of Medicinal Chemistry, NYCOMED GmbH, Konstanz, D-78467, Germany

SOURCE: Tetrahedron: Asymmetry (2008), 19(11), 1310-1327
CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 18 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:288273 CASREACT

TITLE: Methylaluminum Bis(2,6-di-t-butyl-4-methylphenoxide)

AUTHOR(S): Maruoka, Keiji; Yamamoto, Hisashi; Saito, Susumu

CORPORATE SOURCE: Japan

SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME

DOCUMENT TYPE: Conference; General Review; (online computer file)

LANGUAGE: English

L2 ANSWER 19 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:267833 CASREACT

TITLE: Rearrangement of 2-hydroxyalkylazetidines into 3-fluoropyrrolidines

AUTHOR(S): Drouillat, Bruno; Couty, Francois; David, Olivier; Evano, Gwilherm; Marrot, Jerome

CORPORATE SOURCE: Institut Lavoisier de Versailles, UMR CNRS 8180, UniverSud Paris, Universite de Versailles Saint Quentin en Yvelines, Versailles, 78035, Fr.

SOURCE: Synlett (2008), (9), 1345-1348
CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 20 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:267782 CASREACT

TITLE: Stereoselective synthesis of (+)-2-deoxyolivin based on cycloaddition reaction between the homophthalic anhydride and the chiral cyclohexenone derivative

AUTHOR(S): Haruta, Yoshinari; Onizuka, Kazumitsu; Watanabe, Kyouichi; Kono, Kyoko; Nohara, Akihiro; Kubota, Kenichi; Imoto, Shuhei; Sasaki, Shigeki

CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyushu University, 3-1-1 Maidashi, Higashi-ku, Fukuoka, 812-8582, Japan

SOURCE: Tetrahedron (2008), 64(30-31), 7211-7218
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 21 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:266782 CASREACT
TITLE: Lithium Aluminum Hydride-2,2'-Dihydroxy-1,1'-binaphthyl
AUTHOR(S): Gopalan, Aravamudan S.; Jacobs, Hollie K.
CORPORATE SOURCE: USA
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English

L2 ANSWER 22 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:224009 CASREACT

TITLE: Synthesis and preliminary cytotoxic evaluation of substituted indoles as potential anticancer agents

AUTHOR(S): Shi, Chang Qing; Liu, Zhang Qin; Lin, Wen Qing; Chen, Yuan Wei

CORPORATE SOURCE: Key Laboratory of Asymmetric Synthesis & Chirotechnology of Sichuan Province and Union Laboratory of Asymmetric Synthesis, Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences, Chengdu, 610041, Peop. Rep. China

SOURCE: Chinese Chemical Letters (2007), 18(8), 899-901
CODEN: CCLEE7; ISSN: 1001-8417

PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 23 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:200137 CASREACT
TITLE:	3-Benzyl-4-methyl-1,3-thiazolium Chloride
AUTHOR(S):	Kuhlmann, Heinrich
CORPORATE SOURCE:	Germany
SOURCE:	e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK. CODEN: 69KUHI URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE:	Conference; General Review; (online computer file)
LANGUAGE:	English

L2 ANSWER 24 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:152933 CASREACT
TITLE: Process for stereoselectively preparing (S)-duloxetine hydrochloride employing resolution of di-p-tolyl-L-tartaric acid salt of precursor (naphthyloxy)(thienyl)propanamine
INVENTOR(S): Patel, Dhimant Jasubhai; Dwivedi, Shriprakash Dhar
PATENT ASSIGNEE(S): Cadila Healthcare Limited, India
SOURCE: PCT Int. Appl., 83pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008081476	A2	20080710	WO 2007-IN632	20071228
WO 2008081476	A3	20081120		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
IN 2006MU02168	A	20080919	IN 2006-MU2168	20061229

PRIORITY APPLN. INFO.: IN 2006-MU2168 20061229

L2 ANSWER 25 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:129008 CASREACT
TITLE: E-ring-modified 7-oxyiminomethyl camptothecins: Synthesis and preliminary in vitro and in vivo biological evaluation
AUTHOR(S): Giannini, Giuseppe; Marzi, Mauro; Cabri, Walter; Marastoni, Elena; Battistuzzi, Gianfranco; Vesci, Loredana; Pisano, Claudio; Beretta, Giovanni Luca; De Cesare, Michelandrea; Zunino, Franco
CORPORATE SOURCE: Sigma-Tau Research & Development, Pomezia, Rome, I-00040, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(9), 2910-2915
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 26 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:128942 CASREACT

TITLE: Synthesis and biological evaluation of novel ferrocene-substituted triadimefon- and triadimenol-analogues

AUTHOR(S): Jin, Zhong; Hu, Yan; Shao, Ling; Fang, Jianxin

CORPORATE SOURCE: State Key Laboratory and Institute of Elemento-Organic Chemistry, Nankai University, Tianjin, Peop. Rep. China

SOURCE: Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry (2007), 37(8), 601-604
CODEN: SRIMDO; ISSN: 1553-3174

PUBLISHER: Taylor & Francis, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 27 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:126656 CASREACT

TITLE: Synthesis of enantiomerically pure γ-azidoalcohols by lipase-catalyzed transesterification

AUTHOR(S): Kamal, Ahmed; Malik, M. Shaheer; Shaik, Ahmad Ali; Azeeza, Shaik

CORPORATE SOURCE: Biotransformation Laboratory, Division of Organic Chemistry, Indian Institute of Chemical Technology, Hyderabad, 500 007, India

SOURCE: Tetrahedron: Asymmetry (2008), 19(9), 1078-1083
CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 28 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:118670 CASREACT

TITLE: Novel echinocandin antifungals. Optimization of the side chain of the natural product FR901379. Discovery of micafungin

AUTHOR(S): Tomishima, Masaki; Ohki, Hidenori; Yamada, Akira; Maki, Katsuyuki; Ikeda, Fumiaki

CORPORATE SOURCE: Medicinal Chemistry Research Laboratories, Astellas Pharma Inc., 2-1-6 Kashima, Yodogawa-ku, Osaka, 532-8514, Japan

SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(9), 2886-2890
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 29 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:104587 CASREACT
TITLE: Process for preparation of duloxetine and intermediates thereof
INVENTOR(S): Pospisilik, Karel; Dymacek, Bohumil
PATENT ASSIGNEE(S): Synthon B.V., Neth.
SOURCE: PCT Int. Appl., 32pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008077645	A1	20080703	WO 2007-EP11485	20071219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20080171887	A1	20080717	US 2007-4294	20071220

PRIORITY APPLN. INFO.: US 2006-871626P 20061222
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 30 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:79425 CASREACT

TITLE: Synthesis of antidepressant drug duloxetine hydrochloride

AUTHOR(S): Chai, Yu-zhu; Cheng, Guo-hua; Wang, Li; Fan, Lin

CORPORATE SOURCE: Department of Medicinal Chemistry, China Pharmaceutical University, Nanjing, 210009, Peop. Rep. China

SOURCE: Zhongguo Xiandai Yingyong Yaoxue (2007), 24(3), 209-211
CODEN: ZXYYAI; ISSN: 1007-7693

PUBLISHER: Zhongguo Xiandai Yingyong Yaoxue Zazhi Bianji Weiyuanhui

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

L2 ANSWER 31 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:79397 CASREACT
TITLE:	Total Synthesis of cis-Sylvaticin
AUTHOR(S):	Brown, Lynda J.; Spurr, Ian B.; Kemp, Stephen C.; Camp, Nicholas P.; Gibson, Karl R.; Brown, Richard C. D.
CORPORATE SOURCE:	School of Chemistry, University of Southampton, Southampton, SO17 1BJ, UK
SOURCE:	Organic Letters (2008), 10(12), 2489-2492 CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER:	American Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 32 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:54224 CASREACT

TITLE: Asymmetric synthesis of (αR)-polyfluoroalkylated prolinols based on the perfluoroalkyl-induced highly stereoselective reduction of perfluoroalkyl N-Boc-pyrrolidyl Ketones

AUTHOR(S): Funabiki, Kazumasa; Shibata, Akitsugu; Iwata, Hiroki; Hatano, Keisuke; Kubota, Yasuhiro; Komura, Kenichi; Ebihara, Masahiro; Matsui, Masaki

CORPORATE SOURCE: Department of Materials Science and Technology and Department of Chemistry, Faculty of Engineering, Gifu University, 1-1 Yanagido, Gifu, 501-1193, Japan

SOURCE: Journal of Organic Chemistry (2008), 73(12), 4694-4697
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 33 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:53778 CASREACT
TITLE:	Chemical Synthesis of the GHIJKLMNO Ring System of Maitotoxin
AUTHOR(S):	Nicolaou, K. C.; Frederick, Michael O.; Burtoloso, Antonio C. B.; Denton, Ross M.; Rivas, Fatima; Cole, Kevin P.; Aversa, Robert J.; Gibe, Romelo; Umezawa, Taiki; Suzuki, Takahiro
CORPORATE SOURCE:	Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE:	Journal of the American Chemical Society (2008), 130(23), 7466-7476 CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER:	American Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 34 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	149:32451 CASREACT
TITLE:	An exhaustive hydrogenation strategy to bicyclic alkaloids
AUTHOR(S):	Kartika, Rendy; Taylor, Richard E.
CORPORATE SOURCE:	University of Notre Dame, USA
SOURCE:	Chemtracts (2006), 19(10), 385-390 CODEN: CHEMFW; ISSN: 1431-9268
PUBLISHER:	Data Trace Publishing Co.
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 35 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:538012 CASREACT

TITLE: Synthesis of new indole benzylic alcohols as potential precursors of calixindoles

AUTHOR(S): Black, David St. C.; Kumar, Naresh; Wahyuningsih, Tutik Dwi

CORPORATE SOURCE: School of Chemistry, The University of New South Wales, Sydney, NSW, 2052, Australia

SOURCE: ARKIVOC (Gainesville, FL, United States) (2008), (6), 42-51
CODEN: AGFUAR
URL: http://content.arkat-usa.org/ARKIVOC/JOURNAL_CONTENT/manuscripts/2008/TN-2968NP%20as%20published%20mainmanuscript.pdf

PUBLISHER: Arkat USA Inc.

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 36 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	148:537947 CASREACT
TITLE:	Organometallation of (R)-2,3-cyclohexylideneglyceraldehyde derived ketones: a simple and stereoselective strategy for the synthesis of (+)-tanikolide
AUTHOR(S):	Vichare, Prasad; Chattopadhyay, Angshuman
CORPORATE SOURCE:	Bio-Organic Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India
SOURCE:	Tetrahedron: Asymmetry (2008), 19(5), 598-602 CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER:	Elsevier Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 37 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:517443 CASREACT

TITLE: Synthetic Studies on Maitotoxin. 1. Stereoselective Synthesis of the C'D'E'F'-Ring System Having a Side Chain

AUTHOR(S): Morita, Masayuki; Ishiyama, Seishi; Koshino, Hiroyuki; Nakata, Tadashi

CORPORATE SOURCE: RIKEN (The Institute of Physical and Chemical Research), 1-2 Hirosawa, Wako-shi, Saitama, 351-0198, Japan

SOURCE: Organic Letters (2008), 10(9), 1675-1678
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 38 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	148:496325 CASREACT
TITLE:	Efficient synthesis of MUC4 sialylglycopeptide through the new sialylation using 5-acetamido-neuraminamide donors
AUTHOR(S):	Okamoto, Ryo; Souma, Shingo; Kajihara, Yasuhiro
CORPORATE SOURCE:	International Graduate School of Arts and Sciences, Yokohama City University, 22-2 Seto, Kanazawa-ku, Yokohama, 236-0027, Japan
SOURCE:	Journal of Organic Chemistry (2008), 73(9), 3460-3466 CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER:	American Chemical Society
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 39 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:495242 CASREACT

TITLE: On the highly stereoselective addition of lithio-acetylides to α-hydroxy-ketones

AUTHOR(S): Dunford, Damian; Guyader, Mathilde; Jones, Simon; Knight, David W.; Hursthouse, Michael B.; Coles, Simon J.

CORPORATE SOURCE: School of Chemistry, Main College, Cardiff University, Cardiff, CF10 3AT, UK

SOURCE: Tetrahedron Letters (2008), 49(14), 2240-2242
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 40 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:426651 CASREACT

TITLE: Synthesis and antimicrobial activity of some novel derivatives of benzofuran: Part 2. The synthesis and antimicrobial activity of some novel 1-(1-benzofuran-2-yl)-2-mesitylethanone derivatives

AUTHOR(S): Kirilmis, Cumhur; Ahmedzade, Misir; Servi, Sueleyman; Koca, Murat; Kizirgil, Ahmet; Kazaz, Cavit

CORPORATE SOURCE: Department of Chemistry, Faculty of Science and Arts, Firat University, Elazig, 23169, Turk.

SOURCE: European Journal of Medicinal Chemistry (2008), 43(2), 300-308
CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier Masson SAS

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 41 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	148:426620 CASREACT
TITLE:	A formal convergent synthesis of (+)-trans-solamin
AUTHOR(S):	Raghavan, Sadagopan; Ganapathy Subramanian, S.; Tony, K. A.
CORPORATE SOURCE:	Organic Division I, Indian Institute of Chemical Technology, Hyderabad, 500 007, India
SOURCE:	Tetrahedron Letters (2008), 49(10), 1601-1604 CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER:	Elsevier Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 42 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:402997 CASREACT

TITLE: Total Synthesis of (+)- and (−)-Sundiversifolide via Intramolecular Acylation and Determination of the Absolute Configuration

AUTHOR(S): Ohtsuki, Keiko; Matsuo, Kazumasa; Yoshikawa, Takashi; Moriya, Chihiro; Tomita-Yokotani, Kaori; Shishido, Kozo; Shindo, Mitsuru

CORPORATE SOURCE: Institute for Materials Chemistry and Engineering, Kyushu University, 6-1 Kasugako-en, Kasuga, 816-8580, Japan

SOURCE: Organic Letters (2008), 10(6), 1247-1250
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 43 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:393710 CASREACT

TITLE: Rational design of the first small-molecule antagonists of NHERF1/EBP50 PDZ domains

AUTHOR(S): Mayasundari, Anand; Ferreira, Antonio M.; He, Liwen; Mahindroo, Neeraj; Bashford, Don; Fujii, Naoaki

CORPORATE SOURCE: Department of Chemical Biology and Therapeutics, St. Jude Children's Research Hospital, Memphis, TN, 38105, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(3), 942-945
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 44 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:379362 CASREACT

TITLE: A simple route to enantiopure bis-lactones: synthesis of both enantiomers of epi-nor-canadensolide, nor-canadensolide, and canadensolide

AUTHOR(S): Mondal, Sujit; Ghosh, Subrata

CORPORATE SOURCE: Indian Association for the Cultivation of Science, Department of Organic Chemistry, Jadavpur, Kolkata, West Bengal, 700032, India

SOURCE: Tetrahedron (2008), 64(10), 2359-2368
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 45 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:355977 CASREACT

TITLE: De Novo Asymmetric Synthesis of 8a-epi-Swainsonine

AUTHOR(S): Abrams, Jason N.; Babu, Ravula Satheesh; Guo, Haibing; Le, Dianna; Le, Jennifer; Osbourn, Joshua M.; O'Doherty, George A.

CORPORATE SOURCE: Department of Chemistry, West Virginia University, Morgantown, WV, 26506, USA

SOURCE: Journal of Organic Chemistry (2008), 73(5), 1935-1940
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 46 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	148:331867 CASREACT
TITLE:	Synthesis and Biological Evaluation of Fully Functionalized seco-Pancratistatin Analogues
AUTHOR(S):	McNulty, James; Nair, Jerald J.; Griffin, Carly; Pandey, Siyaram
CORPORATE SOURCE:	Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.
SOURCE:	Journal of Natural Products (2008), 71(3), 357-363 CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER:	American Chemical Society-American Society of Pharmacognosy
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 47 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:331854 CASREACT

TITLE: Synthesis of (+)-Zerumin B Using a Regioselective Singlet Oxygen Furan Oxidation

AUTHOR(S): Margaros, Ioannis; Vassilikogiannakis, Georgios

CORPORATE SOURCE: Department of Chemistry, University of Crete, Iraklion, Crete, 71003, Greece

SOURCE: Journal of Organic Chemistry (2008), 73(5), 2021-2023
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 48 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:331394 CASREACT
TITLE: Synthesis of substituted allylic sulfonamides from β-alkoxy aziridines and organolithium reagents
AUTHOR(S): Moore, Stephen P.; O'Brien, Peter; Whitwood, Adrian C.; Gilday, John
CORPORATE SOURCE: Department of Chemistry, University of York, Heslington, York, YO10 5DD, UK
SOURCE: Synlett (2008), (2), 237-241
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 49 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:321826 CASREACT
TITLE: Substituted oxazolidinones as novel NPC1L1 ligands for the inhibition of cholesterol absorption
AUTHOR(S): Pfefferkorn, Jeffrey A.; Larsen, Scott D.; Van Huis, Chad; Sorenson, Roderick; Barton, Tom; Winters, Thomas; Auerbach, Bruce; Wu, Chenyan; Wolfram, Thaddeus J.; Cai, Hongliang; Welch, Kathleen; Esmaiel, Nadia; Davis, JoAnn; Bousley, Richard; Olsen, Karl; Mueller, Sandra Bak; Mertz, Thomas
CORPORATE SOURCE: Pfizer Global Research & Development, Michigan Laboratories, Ann Arbor, MI, 48105, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(2), 546-553
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 50 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:308219 CASREACT

TITLE: Indene-Based Thiazolidinethione Chiral Auxiliary for Propionate and Acetate Aldol Additions

AUTHOR(S): Osorio-Lozada, Antonio; Olivo, Horacio F.

CORPORATE SOURCE: Division of Medicinal and Natural Products Chemistry, The University of Iowa, Iowa City, IA, 52242, USA

SOURCE: Organic Letters (2008), 10(4), 617-620
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 51 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:276118 CASREACT

TITLE: Potent pyrrolidine- and piperidine-based BACE-1 inhibitors

AUTHOR(S): Iserloh, U.; Wu, Y.; Cumming, J. N.; Pan, J.; Wang, L. Y.; Stamford, A. W.; Kennedy, M. E.; Kuvelkar, R.; Chen, X.; Parker, E. M.; Strickland, C.; Voigt, J.

CORPORATE SOURCE: Department of Chemical Research, Schering-Plough Research Institute, Kenilworth, NJ, 07033, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(1), 414-417
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 52 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:253672 CASREACT

TITLE: Characterization of the Antiallergic Drugs 3-[2-(2-Phenylethyl) benzoimidazole-4-yl]-3-hydroxypropanoic Acid and Ethyl 3-Hydroxy-3-[2-(2-phenylethyl)benzoimidazol-4-yl]propanoate as Full Aryl Hydrocarbon Receptor Agonists

AUTHOR(S): Morales, Jose Luis; Krzeminski, Jacek; Amin, Shantu; Perdew, Gary H.

CORPORATE SOURCE: Graduate Program in Biochemistry, Microbiology and Molecular Biology, Department of Pharmacology, College of Medicine and Center for Molecular Toxicology and Carcinogenesis and the Department of Veterinary and Biomedical Sciences, The Pennsylvania State University, University Park, PA, 16802, USA

SOURCE: Chemical Research in Toxicology (2008), 21(2), 472-482
CODEN: CRTOEC; ISSN: 0893-228X

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 53 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:214984 CASREACT
TITLE: Unusual magnesium chloride catalyzed non-Evans anti-aldol reactions of an enolizable L-threose derivative
AUTHOR(S): McNulty, James; Nair, Jerald J.; Sliwinski, Marcin; Harrington, Laura E.; Pandey, Siyaram
CORPORATE SOURCE: Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.
SOURCE: European Journal of Organic Chemistry (2007), (34), 5669-5673
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 54 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:214939 CASREACT
TITLE: Process for preparation of Duloxetine intermediate
INVENTOR(S): Yan, Ming; He, Shanzhen; Zhang, Xuejing
PATENT ASSIGNEE(S): Sun Yat-Sen University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101104614	A	20080116	CN 2007-10028364	20070530

PRIORITY APPLN. INFO.: CN 2007-10028364 20070530
OTHER SOURCE(S): MARPAT 148:214939

L2 ANSWER 55 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:214887 CASREACT

TITLE: Expedient syntheses of β-iodofurans by 5-endo-dig cyclisations

AUTHOR(S): Bew, Sean P.; El-Taeb, Gamila M. M.; Jones, Simon; Knight, David W.; Tan, Wen-Fei

CORPORATE SOURCE: School of Chemistry, Cardiff University, Cardiff, CF10 3AT, UK

SOURCE: European Journal of Organic Chemistry (2007), (34), 5759-5770
CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 56 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:192100 CASREACT

TITLE: De novo asymmetric syntheses of D-, L- and 8-epi-D-swainsonine

AUTHOR(S): Guo, Haibing; O'Doherty, George A.

CORPORATE SOURCE: Department of Chemistry, West Virginia University, Morgantown, WV, 26506, USA

SOURCE: Tetrahedron (2008), 64(2), 304-313
CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 57 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:191768 CASREACT

TITLE: Chemical synthesis of the GHIJK ring system and further experimental support for the originally assigned structure of maitotoxin

AUTHOR(S): Nicolaou, K. C.; Cole, Kevin P.; Frederick, Michael O.; Aversa, Robert J.; Denton, Ross M.

CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA

SOURCE: Angewandte Chemie, International Edition (2007), 46(46), 8875-8879
CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 58 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:191767 CASREACT
TITLE: First total synthesis and absolute configuration of the styryl lactone gonioheptolide A
AUTHOR(S): Gupta, Shuchi; Rajagopalan, Murali; Alhamadsheh, Mamoun M.; Tillekeratne, L. M. Viranga; Hudson, Richard A.
CORPORATE SOURCE: Department of Medicinal and Biological Chemistry, College of Pharmacy, University of Toledo, Toledo, OH, 43606, USA
SOURCE: Synthesis (2007), (22), 3512-3518
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 59 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:144900 CASREACT

TITLE: Synthetic Study of Diversifolin: The Construction of 11-Oxabicyclo[6.2.1]undec-3-ene Core Using Ring-Closing Metathesis

AUTHOR(S): Nakamura, Tomoaki; Oshida, Motoko; Nomura, Tomoko; Nakazaki, Atsuo; Kobayashi, Susumu

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Tokyo University of Science (RIKADAI), Noda-shi, Chiba, 278-8510, Japan

SOURCE: Organic Letters (2007), 9(26), 5533-5536
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 60 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:144638 CASREACT

TITLE: Process for the preparation of duloxetine and its salts

INVENTOR(S): Biswas, Sujoy; Karanjai, Keya; Khanduri, Chandra Has

PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India

SOURCE: PCT Int. Appl., 14pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008004191	A2	20080110	WO 2007-IB52604	20070703
WO 2008004191	A3	20080306		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW		
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA		
IN 2006DE01553	A	20080118	IN 2006-DE1553	20060703

PRIORITY APPLN. INFO.: IN 2006-DE1553 20060703

L2 ANSWER 61 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:144547 CASREACT

TITLE: Dioxadiazuliporphyrin: A Near-IR Redox Switchable Chromophore

AUTHOR(S): Sprutta, Natasza; Siczek, Marta; Latos-Grazynski, Lechoslaw; Pawlicki, Milosz; Szterenberg, Ludmila; Lis, Tadeusz

CORPORATE SOURCE: Department of Chemistry, University of Wroclaw, Wroclaw, 50 383, Pol.

SOURCE: Journal of Organic Chemistry (2007), 72(25), 9501-9509
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 62 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:121948 CASREACT

TITLE: Dipeptidyl-α,β-epoxyesters as potent irreversible inhibitors of the cysteine proteases cruzain and rhodesain

AUTHOR(S): Gonzalez, Florenci V.; Izquierdo, Javier; Rodriguez, Santiago; McKerrow, James H.; Hansell, Elizabeth

CORPORATE SOURCE: Departament de Quimica Inorganica i Organica, Universitat Jaume I, Castello, 12071, Spain

SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(24), 6697-6700
CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 63 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:121523 CASREACT

TITLE: Synthesis of novel chiral salen-type ferrocenyl ligands

AUTHOR(S): Ballistreri, Francesco P.; Patti, Angela; Pedotti, Sonia; Tomaselli, Gaetano A.; Toscano, Rosa M.

CORPORATE SOURCE: Dipartimento di Scienze Chimiche, Universita di Catania, Catania, I-95125, Italy

SOURCE: Tetrahedron: Asymmetry (2007), 18(20), 2377-2380
CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 64 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:100538 CASREACT
TITLE: Synthesis and Evaluation of 7H-8,9-Dihydropyrano[2,3-c]imidazo[1,2-a]pyridines as Potassium-Competitive Acid Blockers
AUTHOR(S): Palmer, Andreas M.; Grobbel, Burkhard; Jecke, Cornelia; Brehm, Christof; Zimmermann, Peter J.; Buhr, Wilm; Feth, Martin P.; Simon, Wolfgang-Alexander; Kromer, Wolfgang
CORPORATE SOURCE: Departments of Medicinal Chemistry, Analytical Chemistry, Biochemistry, and Pharmacology, NYCOMED GmbH, Konstanz, D-78467, Germany
SOURCE: Journal of Medicinal Chemistry (2007), 50(24), 6240-6264
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 65 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:55069 CASREACT

TITLE: Process for the production of intermediates for the preparation of tricyclic imidazopyridines and their use in the treatment of gastrointestinal disorders

INVENTOR(S): Palmer, Andreas; Buhr, Wilm; Zimmermann, Peter Jan; Brehm, Christof; Chiesa, Maria Vittoria; Zanotti-Gerosa, Antonio

PATENT ASSIGNEE(S): Nycomed GmbH, Germany

SOURCE: PCT Int. Appl., 81pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007141253	A1	20071213	WO 2007-EP55496	20070605

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2006-115085 20060607

OTHER SOURCE(S): MARPAT 148:55069

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 66 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33768 CASREACT
TITLE: Preparation of bridged aryl piperazines derivatives useful for the treatment of CNS, gastrointestinal and reproductive disorders
INVENTOR(S): Creighton, Christopher John; Ross, Tina Morgan; Reitz, Allen B.; Kordik, Cheryl P.; Paget, Steven
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 122pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007137168	A2	20071129	WO 2007-US69256	20070518
WO 2007137168	A3	20080912		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
US 20080070919	A1	20080320	US 2007-750629	20070518

PRIORITY APPLN. INFO.: US 2006-801439P 20060518
OTHER SOURCE(S): MARPAT 148:33768

L2 ANSWER 67 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:33613 CASREACT

TITLE: Preparation of duloxetine and intermediates

INVENTOR(S): Ini, Santiago; Abramov, Mili

PATENT ASSIGNEE(S): Israel

SOURCE: U.S. Pat. Appl. Publ., 7pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070281989	A1	20071206	US 2007-809730	20070531
WO 2007143065	A2	20071213	WO 2007-US12892	20070531
WO 2007143065	A3	20080515		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 1976846	A2	20081008	EP 2007-795573	20070531
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
US 20080207923	A1	20080828	US 2007-981318	20071030
MX 2008001519	A	20080829	MX 2008-1519	20080130
PRIORITY APPLN. INFO.:			US 2006-809977P	20060531
			US 2005-719880P	20050922
			US 2006-761583P	20060123
			US 2006-771069P	20060206
			US 2006-525336	20060921
			US 2007-809730	20070531
			WO 2007-US12892	20070531

L2 ANSWER 68 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33577 CASREACT
TITLE: Polysubstituted Oxygen Heterocycles by a Reformatsky-Type Reaction/Reductive Cyclization Approach from Enantiopure β-Ketosulfoxides
AUTHOR(S): Colobert, Francoise; Choppin, Sabine; Ferreiro-Mederos, Leticia; Obringer, Michel; Luengo Arratta, Sandra; Urbano, Antonio; Carreno, M. Carmen
CORPORATE SOURCE: Laboratoire de Stereochimie, CNRS, UMR, Universite Louis Pasteur, ECPM, Strasbourg, 67087, Fr.
SOURCE: Organic Letters (2007), 9(22), 4451-4454
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 69 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33538 CASREACT
TITLE: Method for synthesis of Penicillide derivative
INVENTOR(S): Lin, Guoqiang; Sun, Zhihua; Qi, Chuangyu; Sun, Xun
PATENT ASSIGNEE(S): Fudan University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 20pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101066967	A	20071107	CN 2006-10119528	20061212
PRIORITY APPLN. INFO.:			CN 2006-10119528	20061212

L2 ANSWER 70 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:11417 CASREACT

TITLE: Stereoselective Total Synthesis of Bioactive Styryllactones (+)-Goniofufurone, (+)7-epi-Goniofufurone, (+)-Goniopypyrone, (+)-Goniotriol, (+)-Altholactone, and (-)-Etharvensin

AUTHOR(S): Prasad, Kavirayani R.; Gholap, Shivajirao L.

CORPORATE SOURCE: Department of Organic Chemistry, Indian Institute of Science, Bangalore, 560012, India

SOURCE: Journal of Organic Chemistry (2008), 73(1), 2-11
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 71 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 147:541715 CASREACT
TITLE: process for the preparation of (+)-duloxetine via resolution of (±)-N-methyl duloxetine
INVENTOR(S): Poggiali, Andrea; Pizzocaro, Francesco; Tubertini, Paolo
PATENT ASSIGNEE(S): Solmag S.p.A., Italy
SOURCE: Eur. Pat. Appl., 9pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1857451	A1	20071121	EP 2006-9313	20060505
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				

PRIORITY APPLN. INFO.: EP 2006-9313 20060505
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 72 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	147:522504 CASREACT
TITLE:	Synthetic route towards (5R,2'S,5'S,6'S)-ribosyl-diazepanone, an analogue core of the liposidomycins
AUTHOR(S):	Drouillat, Bruno; Bourdreux, Yann; Perdon, Delphine; Greck, Christine
CORPORATE SOURCE:	Institut Lavoisier de Versailles, UMR CNRS 8180, Universite de Versailles St-Quentin-en-Yvelines, Versailles, 78035, Fr.
SOURCE:	Tetrahedron: Asymmetry (2007), 18(16), 1955-1963 CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER:	Elsevier Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English
REFERENCE COUNT:	32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 73 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 147:522032 CASREACT

TITLE: Multigram synthesis of diastereomerically pure tetrahydrofuran-diols

AUTHOR(S): Goehler, Sabrina; Roth, Stefanie; Cheng, Huan; Goeksel, Huelya; Rupp, Alexander; Haustedt, Lars O.; Stark, Christian B. W.

CORPORATE SOURCE: Institut fuer Chemie und Biochemie, Freie Universitaet Berlin, Berlin, 14195, Germany

SOURCE: Synthesis (2007), (17), 2751-2754
CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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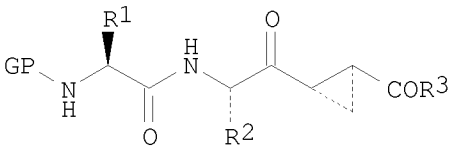
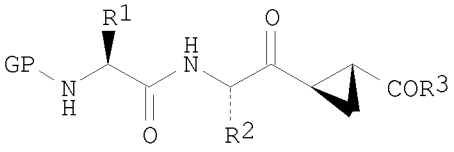
L2 ANSWER 1 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 150:35683 CASREACT
TITLE: Preparation of dipeptide epoxide derivatives as cysteine proteases inhibitors
INVENTOR(S): Gonzalez Adelantado, Florenci Vicent; Rodriguez Pastor, Santiago; Izquierdo Ferrer, Javier
PATENT ASSIGNEE(S): Universitat Jaume I, Spain
SOURCE: PCT Int. Appl., 37pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008152178	A1	20081218	WO 2008-ES70116	20080612
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
ES 2310143	A1	20081216	ES 2007-1717	20070615

PRIORITY APPLN. INFO.: ES 2007-1717 20070615
GI



I

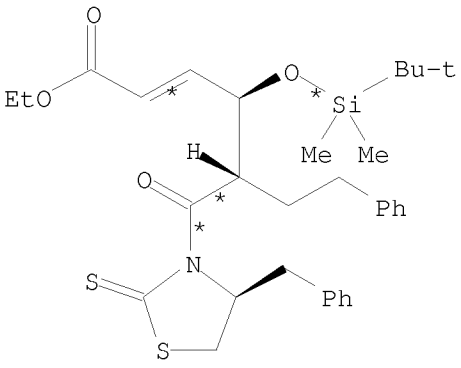


II

AB The invention relates to substantially pure diastereoisomeric dipeptide epoxides of formulas I and II, where GP is a protective group, R1 is phenylmethyl, 4-hydroxyphenylmethyl, (1H-indol-3-yl)methyl, or (1H-imidazol-4-yl)methyl; R2 is H, Me, CH2SH, CH2OH, CH2Ph, CH2CO2H, CH2CONH2, CHMeOH, CHMeEt, CHMe2, CH2CHMe2, (CH2)2SMe, (CH2)2CO2H, CH2CONH2, (CH2)3NHC(:NH)NH2, (CH2)4NH2, imidazol-4-ylmethyl, 4-hydroxyphenylmethyl, (1H-indol-3-yl)methyl, (1H-imidazol-4-il)methyl, or (CH2)nAr (n is 2 or 3; Ar is a carbon or nitrogen radical of a known

carbocyclic aromatic ring which optionally has 1-3 heteroatoms N, S or O and may be substituted), and R3 is alkyl, alk(en)(yn)oxy, -O-alkyl-Ar, -OAr, NRa-Ar, NRa(alkyl-Ar), or NRaO-Ar, or NRa-alkoxy-Ar or their pharmaceutically-acceptable salts. These compds. are inhibitors of cruzain, rhodesain and falcipain cysteine proteases and are therefore used for the treatment and/or prevention of pathologies such as Chagas's disease, African trypanosomiasis or malaria. Thus, I and II [GP = benzyloxycarbonyl (Cbz), R1 = benzyl, R2 = phenethyl, R3 = ethoxy] were prepared by a multistep sequence involving reactions of 4-phenylbutyric acid, (E)-Et 3-formylacrylate, and Cbz-protected L-phenylalanine. Products I and II were evaluated for inhibition of Tripanosoma brucei brucei (Tbb), cruzain, rhodesain, and cathepsin B (percent inhibitions are 42 and -2%, 93 and 55%, 98 and 80%, and 51 and 47%, resp.).

RX(48) OF 84 COMPOSED OF RX(6), RX(8), RX(10), RX(12)
RX(48) T + AC ===> AN



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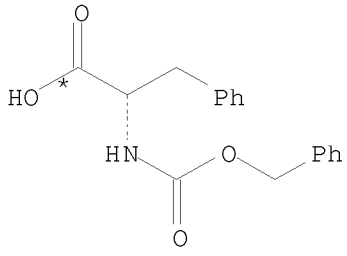
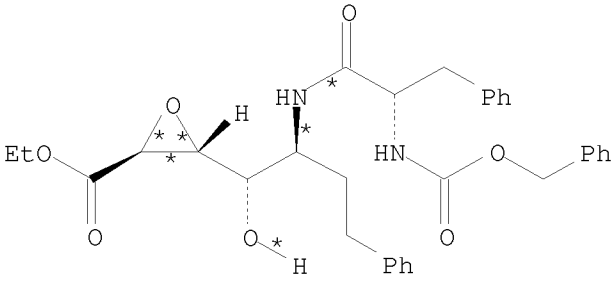


AC

4
STEPS



AN

RX(6) RCT T 1092555-15-1

STAGE(1)
RGT Y 7722-84-1 Hydrogen peroxide (H2O2)
SOL 7732-18-5 Water, 109-99-9 Furan, tetrahydro-
CON 0 deg C

STAGE(2)
RGT Z 1310-65-2 Lithium hydroxide (Li(OH))
SOL 7732-18-5 Water

```
            CON  2 hours, room temperature

          STAGE(3)
            RGT  AA 7757-83-7 Sulfurous acid, sodium salt (1:2)
            SOL  7732-18-5 Water
            CON  20 minutes, room temperature

        PRO  X 1000981-23-6

RX(8)   RCT  X 1000981-23-6

          STAGE(1)
            RGT  G 121-44-8 Ethanamine, N,N-diethyl-
            SOL  7732-18-5 Water, 67-64-1 2-Propanone
            CON  0 deg C

          STAGE(2)
            RGT  AE 79-22-1 Carbonochloridic acid, methyl ester
            CON  1.5 hours, 0 deg C

          STAGE(3)
            RGT  AF 26628-22-8 Sodium azide (Na(N3))
            SOL  7732-18-5 Water
            CON  4 hours, room temperature

          STAGE(4)
            SOL  108-88-3 Benzene, methyl-
            CON  35 minutes, reflux

          STAGE(5)
            RCT  AC 1161-13-3
            CAT  1122-58-3 4-Pyridinamine, N,N-dimethyl-
            SOL  75-09-2 Methane, dichloro-
            CON  SUBSTAGE(1) 1.5 hours, 0 deg C
                 SUBSTAGE(2) 6 hours, room temperature

        PRO  AD 1000981-25-8
        NTE  Curtius rearrangement (stage 4), thermal (stage 4)

RX(10)  RCT  AD 1000981-25-8
        RGT  AL 429-41-4 1-Butanaminium, N,N,N-tributyl-, fluoride (1:1)
        PRO  AK 1092555-17-3
        SOL  109-99-9 Furan, tetrahydro-
        CON  SUBSTAGE(1) 0 deg C
             SUBSTAGE(2) 7.5 hours, room temperature

RX(12)

          STAGE(1)
            RGT  AO 811-49-4 Lithium, ethyl-, AP 75-91-2 Hydroperoxide,
                 1,1-dimethylethyl
            SOL  109-99-9 Furan, tetrahydro-, 71-43-2 Benzene, 108-88-3
                 Benzene, methyl-, 110-82-7 Cyclohexane
            CON  15 minutes, -78 deg C

          STAGE(2)
            RCT  AK 1092555-17-3
            SOL  109-99-9 Furan, tetrahydro-
            CON  SUBSTAGE(1) -78 deg C
                 SUBSTAGE(2) 3 days, room temperature

          STAGE(3)
```

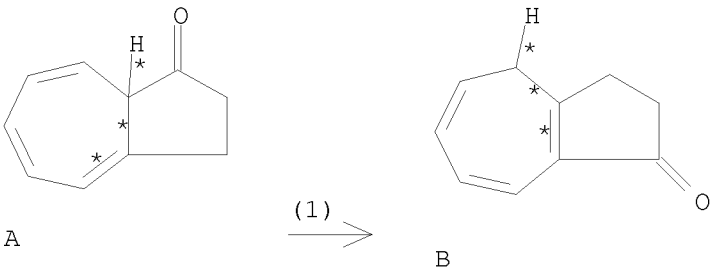
RGT AA 7757-83-7 Sulfurous acid, sodium salt (1:2)
CON 15 minutes, room temperature

PRO AN 1000981-26-9
NTE Sharpless epoxidation of allylic alcohols, stereoselective
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555769 CASREACT
TITLE: Diazo ketone cyclization onto a benzene ring: 3,4-dihydro-1(2H)-azulenone
AUTHOR(S): Scott, Lawrence T.; Sumpter, Chris A.
CORPORATE SOURCE: Univ. Nevada, Reno, NV, USA
SOURCE: Organic Syntheses (1990), 69, No pp. given
CODEN: OSRYAV
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Diazo ketone cyclization onto a benzene ring: 3,4-dihydro-1(2H)-azulenone.

VERIFICATION INCOMPLETE

RX(1) OF 2 A ===> B

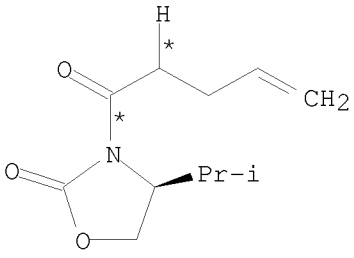


A B

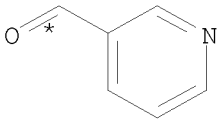
RX(1) RCT A 90266-03-8
RGT C 203109-58-4 Aluminum oxide (Al4O6)
PRO B 52487-41-9
NTE Al2O3, Isomerization

L2 ANSWER 3 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555124 CASREACT
TITLE: Asymmetric aldol reactions using boron enolates
AUTHOR(S): Cowden, Cameron J.; Paterson, Ian
CORPORATE SOURCE: University Chemical Laboratory, Cambridge, UK
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1997), 51, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Asym. aldol reactions using boron enolates.

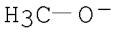
RX(109) OF 845 JO + JP + JQ ===> JR



JO

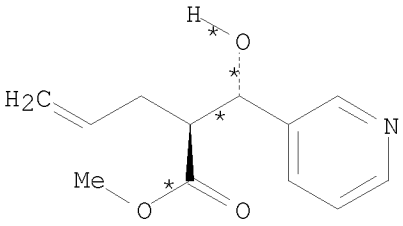


JP



JQ

(109)

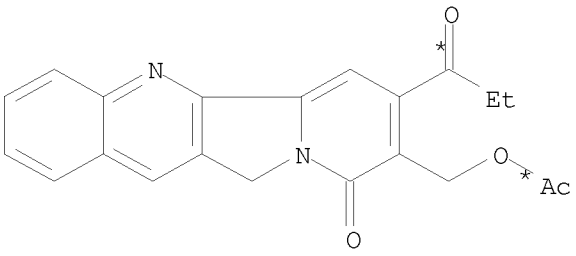


JR

RX(109) RCT JO 116386-68-6, JP 500-22-1, JQ 3315-60-4
RGT CT 60669-69-4 Methanesulfonic acid, 1,1,1-trifluoro-, anhydride with B,B-dibutylborinic acid, CJ 7087-68-5 2-Propanamine, N-ethyl-N-(1-methylethyl)-
PRO JR 125246-57-3
NTE stereoselective, Bu2BOTf, (i-Pr)2NEt, 0 C, Add aldehyde, 5 C, Add NaOMe, Addition, Alkylation, Asymmetric induction, C-Alkylation

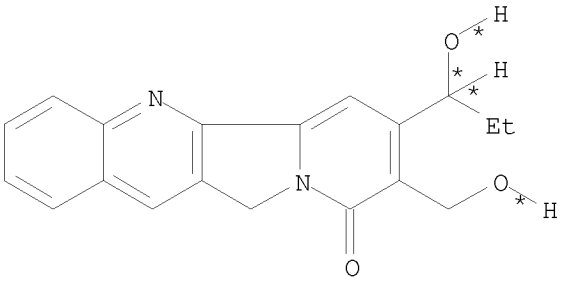
L2 ANSWER 4 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555118 CASREACT
TITLE: Reductions by metal alkoxyaluminum hydrides. Part II. Carboxylic acids and derivatives, nitrogen compounds, and sulfur compounds
AUTHOR(S): Malek, Jaroslav
CORPORATE SOURCE: Czech. Acad. Sci., Prague, Czech.
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1988), 36, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Redns. by metal alkoxyaluminum hydrides. Part II. Carboxylic acids and derivs., nitrogen compds., and sulfur compds.

RX(534) OF 1520 ANM ===> ANN



ANM

(534)

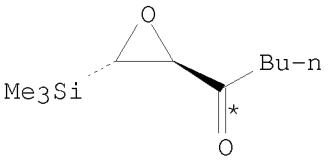


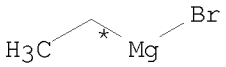
ANN

RX(534) RCT ANM 1071019-07-2
RGT ANO 149297-40-5 Dioxirane, methoxyphenyl-, DZ 16853-85-3 Aluminate(1-), tetrahydro-, lithium (1:1), (T-4)-
PRO ANN 54318-61-5
SOL 60-29-7 Ethane, 1,1'-oxybis-
NTE chemoselective, LiAlH4/BCGF, Ether, Reflux 2 h., Cleavage, Ester cleavage, Reduction, Reductive cleavage, Selective

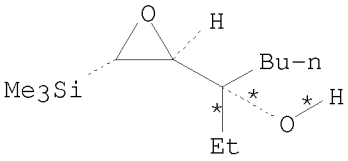
L2 ANSWER 5 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555090 CASREACT
TITLE: Asymmetric epoxidation of allylic alcohols: The Katsuki-Sharpless epoxidation reaction
AUTHOR(S): Katsuki, Tsutomu; Martin, Victor
CORPORATE SOURCE: Kyushu University, Japan
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1996), 48, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Asym. epoxidn. of allylic alcs.: The Katsuki-Sharpless epoxidn. reaction.

RX(19) OF 114 ...BC + BF ===> BG





BC BF (19)

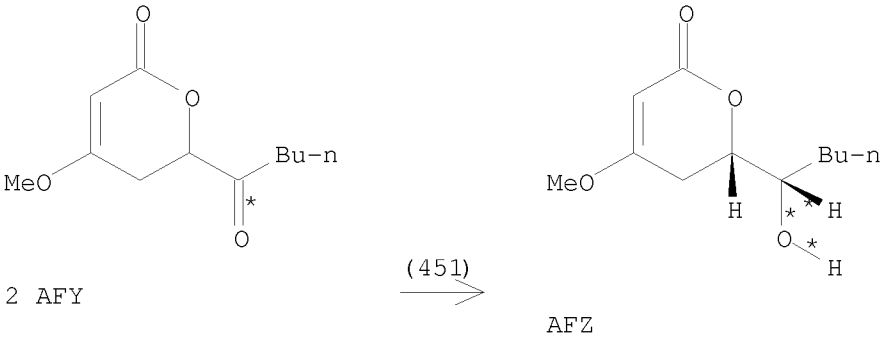


BG

RX(19) RCT BC 136158-39-9, BF 925-90-6
PRO BG 136233-99-3
NTE stereoselective, Addition, Alkylation, C-Alkylation

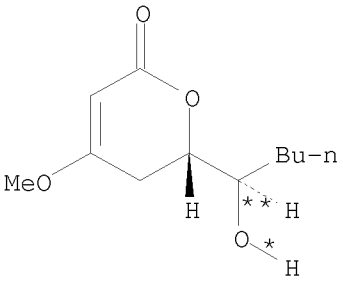
L2 ANSWER 6 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:555081 CASREACT
TITLE: Reductions by metal alkoxyaluminum hydrides
AUTHOR(S): Malek, Jaroslav
CORPORATE SOURCE: Institue of Chemical Process Fundamentals, Prague, Czech.
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1985), 34, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Redns. by metal alkoxyaluminum hydrides.

RX(451) OF 1025 2 AFY ===> AFZ + AGA



2 AFY

AFZ



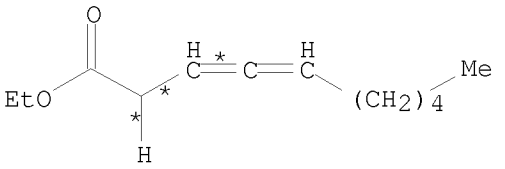
AGA

RX(451) RCT AFY 52251-10-2
RGT BB 17476-04-9 Aluminate(1-), hydrotris(2-methyl-2-propanolato)-, lithium (1:1), (T-4)-
PRO AFZ 34565-32-7, AGA 94347-33-8
SOL 60-29-7 Ethane, 1,1'-oxybis-
NTE stereoselective, Li(t-BuO)3AlH, Ether, 0 C/5 min., Yield 92%, Reduction

L2 ANSWER 7 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:533325 CASREACT
TITLE: Ethyl (E,Z)-2,4-decadienoate
AUTHOR(S): Tsuboi, S.; Masuda, T.; Mimura, S.; Takeda, A.
CORPORATE SOURCE: Okayama Univ., Okayama, Japan
SOURCE: Organic Syntheses (1988), 66, No pp. given
CODEN: OSRYAV
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Et (E,Z)-2,4-decadienoate.

VERIFICATION INCOMPLETE

RX(1) OF 1 A ===> B



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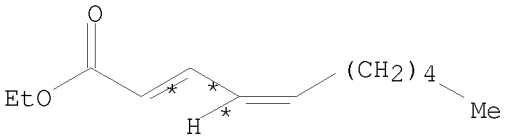


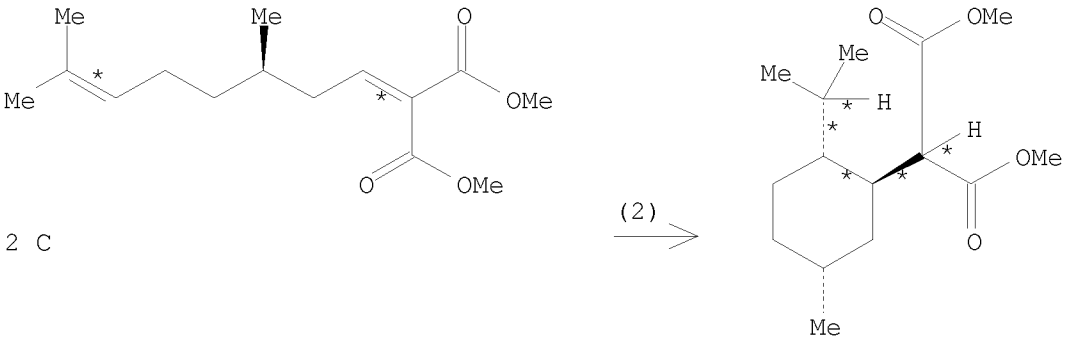
B
YIELD 88%

RX(1) RCT A 36186-28-4
RGT C 203109-58-4 Aluminum oxide (Al4O6)
PRO B 3025-30-7
SOL 71-43-2 Benzene
NTE Al2O3, 200 C/2 h., Pressure (0.05 mm), (Under N2), Allenic ester, Benzene, Reflux 5 h., Geoselective, Isomerization, Pressure

L2 ANSWER 8 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:513168 CASREACT
TITLE: Diastereoselective formation of trans-1,2-disubstituted cyclohexanes from alkylidenemalonates by an intramolecular ene reaction: dimethyl (1'R,2'R,5'R)-2-(2'-isopropenyl-5'-methylcyclohex-1'-yl)-propane-1,3-dioate
AUTHOR(S): Tietze, L. F.; Beifuss, U.
CORPORATE SOURCE: Georg-August-Univ., Goettingen, Germany
SOURCE: Organic Syntheses (1993), 71, No pp. given
CODEN: OSRYAV
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Diastereoselective formation of trans-1,2-disubstituted cyclohexanes from alkylidenemalonates by an intramol. ene reaction: di-Me (1'R,2'R,5'R)-2-(2'-isopropenyl-5'-methylcyclohex-1'-yl)-propane-1,3-dioate.

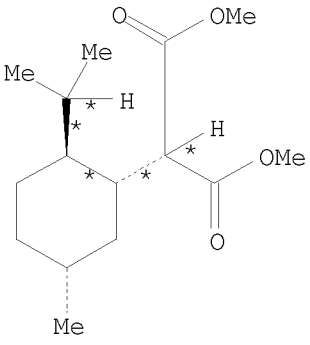
VERIFICATION INCOMPLETE

RX(2) OF 3 ...2 C ===> G + H



2 C

G



H

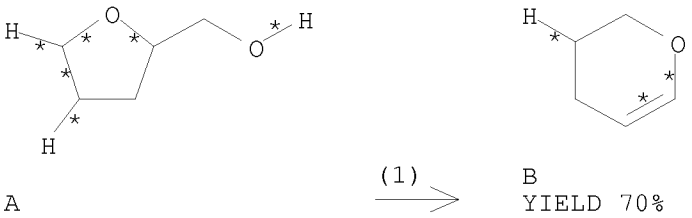
RX(2) RCT C 106431-76-9
RGT I 203109-58-4 Aluminum oxide (Al4O6), J 7705-08-0 Iron chloride

(FeCl3)
PRO G 177019-60-2, H 176907-22-5
SOL 75-09-2 Methane, dichloro-
NTE stereoselective, FeCl3, Al2O3, CH2Cl2, -78 C/2 h., (Under Ar), 20 C/2 h., Yield 98%, Cyclisation, Intramolecular

L2 ANSWER 9 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:512887 CASREACT
TITLE: 2,3-Dihydropyran
AUTHOR(S): Sawyer, R. L.; Andrus, D. W.
CORPORATE SOURCE: USA
SOURCE: Organic Syntheses (1943), 23, No pp. given
CODEN: OSRYAV
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554793/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article 2,3-Dihydropyran.

VERIFICATION INCOMPLETE

RX(1) OF 1 A ===> B



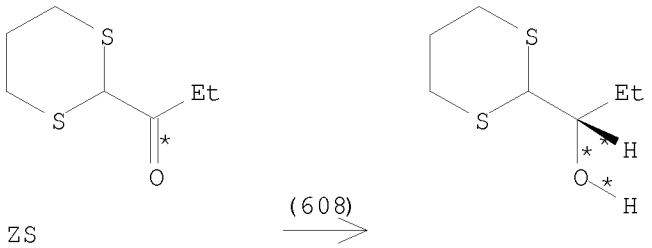
A

B
YIELD 70%

RX(1) RCT A 97-99-4
RGT C 203109-58-4 Aluminum oxide (Al4O6)
PRO B 110-87-2
NTE thermal, no solvent, Al2O3 (act.), 300-340 C, 50 ml/h, Catalysis, Heterocyclization, Ring expansion

L2 ANSWER 10 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:512458 CASREACT
TITLE: Enantioselective reduction of ketones
AUTHOR(S): Itsuno, Shinichi
CORPORATE SOURCE: Toyohashi University of Technology, Toyohashi, Japan
SOURCE: Organic Reactions (Hoboken, NJ, United States) (1998), 52, No pp. given
CODEN: ORHNBA
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/107610747/HOME
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Enantioselective reduction of ketones.

RX(608) OF 659 ZS ===> ZT



ZS

ZT
YIELD 71%

RX(608) RCT ZS 73119-29-6
RGT YZ 58367-01-4 Glucose, ZM 7487-88-9 Sulfuric acid magnesium salt (1:1)
PRO ZT 80856-80-0
NTE stereoselective, biotransformation, Saccharomyces cerevisiae whole cells used, Baker's yeast, D-Glucose, MgSO4, Reduction

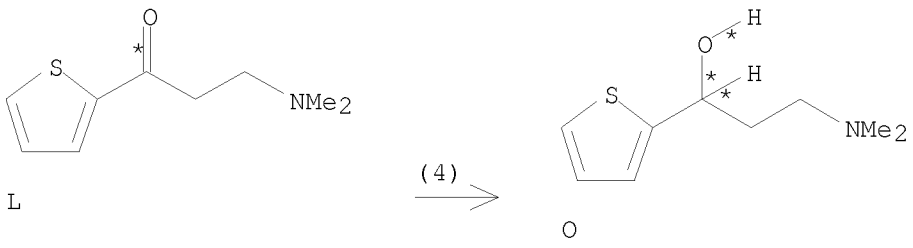
L2 ANSWER 11 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:315708 CASREACT
TITLE: Pure DNT-maleate, methods of preparation thereof, and use for pharmaceutical formulations
INVENTOR(S): Ini, Santiago; Abramov, Mili
PATENT ASSIGNEE(S): Israel
SOURCE: U.S. Pat. Appl. Publ., 16pp., Cont.-in-part of U.S. Ser. No. 809,730.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080207923	A1	20080828	US 2007-981318	20071030
US 20070185192	A1	20070809	US 2006-525336	20060921
US 20070281989	A1	20071206	US 2007-809730	20070531
EP 1976846	A2	20081008	EP 2007-795573	20070531
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
MX 2008001519	A	20080829	MX 2008-1519	20080130

PRIORITY APPLN. INFO.: US 2005-719880P 20050922
US 2006-761583P 20060123
US 2006-771069P 20060206
US 2006-809977P 20060531
US 2006-525336 20060921
US 2007-809730 20070531
WO 2007-US12892 20070531

AB (S)-N,N-Dimethyl-3-(1-naphthalenyloxy)-3-(2-thienyl)propanamine maleate (DNT-maleate) and polymorphs of DNT-maleate, compns. of DNT-maleate and its polymorphs, processes for the preparation of DNT-maleate and its polymorphs, and processes for the preparation of duloxetine hydrochloride from DNT-maleate are provided. Processes for preparing CP duloxetine and CP duloxetine intermediates are also provided. In addition, CP DNT and salts thereof are provided. Thus, solution of 7.45 g maleic acid in 50 mL acetone was added to a solution of 20 g DNT in 25 mL of acetone at 25 °C, and stirred at the same temperature for 1h; the resulting solid was filtered off, washed with 10 mL of acetone, and dried in a vacuum oven (10 mm Hg) at room temperature for 48 h, resulting in 18.65 g of DNT maleate (chemical yield: 68 %); the product was analyzed by XRD and found to be Form Ma1.

RX(4) OF 18 ...L ===> O...



L

O

RX(4) RCT L 13196-35-5

```
  STAGE(1)
     RGT  P 1310-73-2 Sodium hydroxide (Na(OH)), Q 16940-66-2
          Borate(1-), tetrahydro-, sodium (1:1)
     SOL  7732-18-5 Water, 67-56-1 Methanol
     CON  SUBSTAGE(1) room temperature -> 0 deg C
          SUBSTAGE(2) pH 10
          SUBSTAGE(4) overnight, room temperature

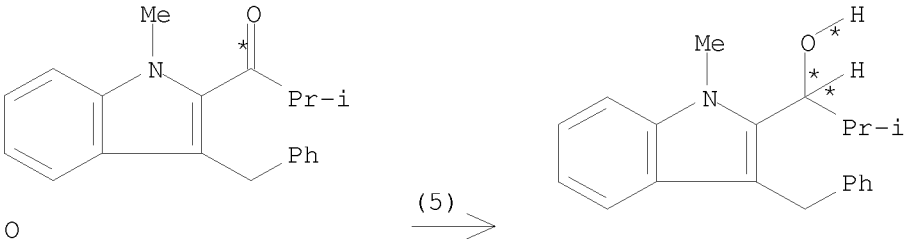
  STAGE(2)
     RGT  M 7647-01-0 Hydrochloric acid
     SOL  7732-18-5 Water
     CON  SUBSTAGE(1) pH 1.5
          SUBSTAGE(2) 20 minutes

PRO  O 13636-02-7
```

L2 ANSWER 12 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:307616 CASREACT
TITLE: Design and synthesis of novel indole derivatives as anticancer agents
AUTHOR(S): Shi, Chang-qing; Lin, Wen-qing; Chen, Yuan-wei
CORPORATE SOURCE: Key Laboratory of Asymmetric Synthesis and Chirotechnology of Sichuan Province and Union Laboratory of Asymmetric Synthesis, Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences, Chengdu, 610041, Peop. Rep. China
SOURCE: Hecheng Huaxue (2007), 15(4), 454-458
CODEN: HEHUE2; ISSN: 1005-1511
PUBLISHER: Hecheng Huaxue Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Several disubstituted indole derivs. were prepared 33-37% yield. An example compound thus prepared was N-(3-aminopropyl)-5-fluoro-2-methyl-N-[2-methyl-1-[1-methyl-3-(phenylmethyl)-1H-indol-2-yl]propyl]benzamide. The structures were confirmed by 1H NMR and MS. The anticancer activity of the compds. thus prepared is not reported here.

RX(5) OF 82 ...O ===> S...



O

S
YIELD 95%

RX(5) RCT O 1042223-36-8

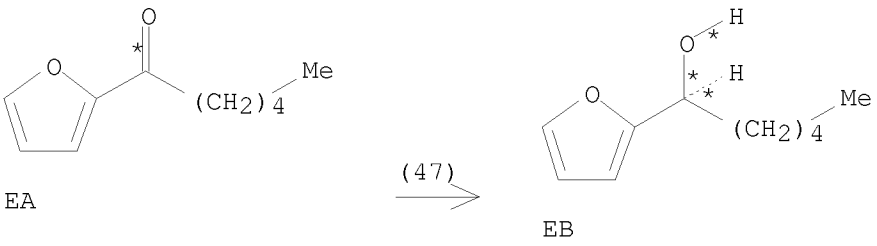
STAGE(1)
RGT T 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 64-17-5 Ethanol
CON SUBSTAGE(1) cooled
SUBSTAGE(2) 1 hour, room temperature

STAGE(2)
RGT K 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water
CON 20 minutes, room temperature

PRO S 1042223-32-4

L2 ANSWER 13 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:307082 CASREACT
TITLE: (R)- & (S)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl
AUTHOR(S): Kitamura, Masato; Noyori, Ryoji; Tsukamoto, M.
CORPORATE SOURCE: Japan
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article (R)- & (S)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl.

RX(47) OF 123 EA ===> EB

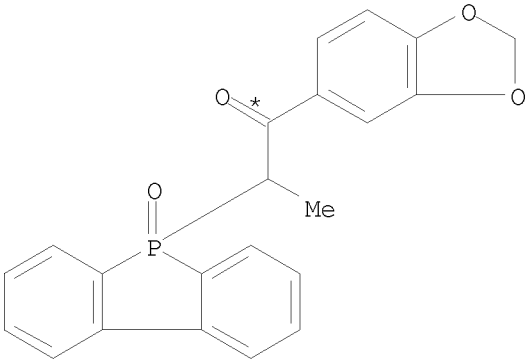


EA EB

RX(47) RCT EA 14360-50-0
RGT DN 865-47-4 2-Propanol, 2-methyl-, potassium salt (1:1), D 1333-74-0 Hydrogen
PRO EB 128821-06-7
CAT 220114-01-2 Ruthenium, [1,1'-(1S)-[1,1'-binaphthalene]-2,2'-diylbis[1,1-bis(3,5-dimethylphenyl)phosphine-κP]][(2S)-1,1-bis(4-methoxyphenyl)-3-methyl-1,2-butanediamine-κN1,κN2]dichloro-, (OC-6-14)-
SOL 67-63-0 2-Propanol
CON 1 - 8 atm
NTE BINAP/Diamine-Ru(II)-catalyzed Asymmetric Hydrogenations

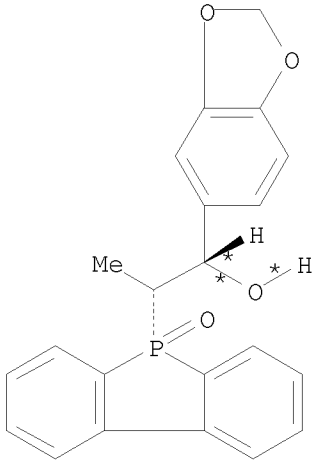
L2 ANSWER 14 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:306817 CASREACT
TITLE: Zinc Borohydride
AUTHOR(S): Oishi, Takeshi; Nakata, Tadashi
CORPORATE SOURCE: Japan
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Zinc Borohydride.

RX(16) OF 30 2 AP ===> AQ + AR...

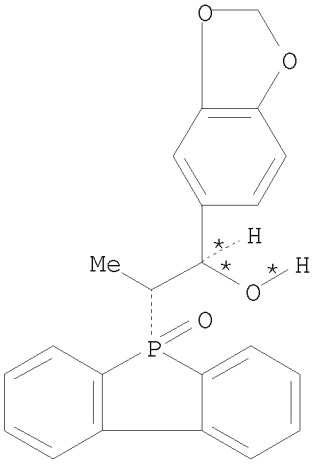


2 AP

(16)



AQ

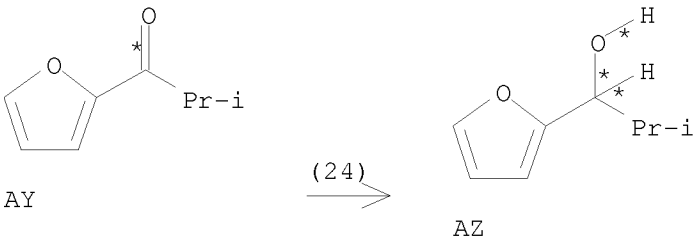


AR

RX(16) RCT AP 104891-74-9
        PRO AQ 104891-51-2, AR 104891-85-2
        CAT 17611-70-0 Borate(1-), tetrahydro-, zinc (2:1)
        SOL 60-29-7 Ethane, 1,1'-oxybis-
        CON -78 deg C
        NTE Stereoselective Reductions, Stage 1: Yield: 95%

L2 ANSWER 15 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:306813 CASREACT
TITLE: (Bicyclo[2.2.1]hepta-2,5-diene)[1,4-bis(diphenylphosphino)butane]rhodium(I) Tetrafluoroborate
AUTHOR(S): Evans, David A.; Miller, Scott J.; Brown, John M.; Layzell, Timothy P.; Ramsden, James A.
CORPORATE SOURCE: USA
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article (Bicyclo[2.2.1]hepta-2,5-diene)[1,4-bis(diphenylphosphino)butane]rhodium(I) Tetrafluoroborate.

RX(24) OF 50 AY ===> AZ

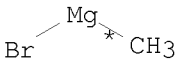


AY AZ

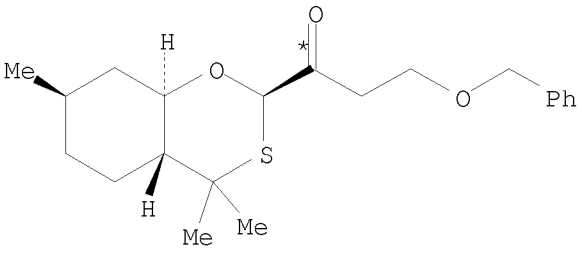
RX(24) RCT AY 4208-53-1
PRO AZ 4466-23-3
CAT 82499-43-2 Rhodium(1+), [(2,3,5,6-η)-bicyclo[2.2.1]hepta-2,5-diene][1,4-butanediylbis[diphenylphosphine-κP]]-, tetrafluoroborate(1-), 90-39-1 7,14-Methano-2H,6H-dipyrido[1,2-a:1',2'-e][1,5]diazocine, dodecahydro-, (7S,7aR,14S,14aS)-, 775-12-2 Benzene, 1,1'-silylenebis-
NTE Hydrosilylation, multistep transformation, Stage 2: H+

L2 ANSWER 16 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:306706 CASREACT
TITLE: (4aR)-(4aa,7a,8ab)-Hexahydro-4,4,7-trimethyl-4H-1,3-benzoxathiin
AUTHOR(S): Lynch, Joseph E.
CORPORATE SOURCE: USA
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article (4aR)-(4aa,7a,8ab)-Hexahydro-4,4,7-trimethyl-4H-1,3-benzoxathiin.

RX(5) OF 18 2 L + 2 O ===> P + Q

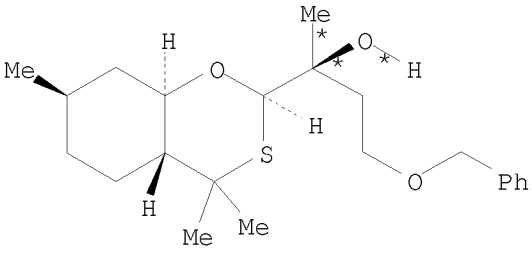


2 L

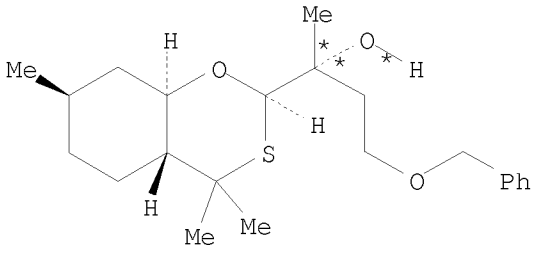


2 O

(5)



P



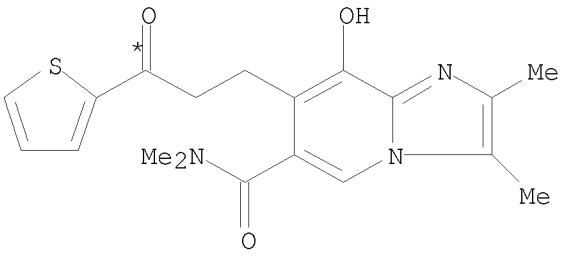
Q

RX(5) RCT L 75-16-1, O 107288-58-4
PRO P 107288-64-2, Q 112066-96-3
NTE multistep transformation

L2 ANSWER 17 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:288720 CASREACT
TITLE: Preparation of tricyclic imidazopyridines by asymmetric ketone hydrogenation in the presence of RuCl2[(S)-Xyl-P-Phos][(S)-DAIPEN]
AUTHOR(S): Palmer, Andreas Marc; Zanotti-Gerosa, Antonio; Nedden, Hans
CORPORATE SOURCE: Department of Medicinal Chemistry, NYCOMED GmbH, Konstanz, D-78467, Germany
SOURCE: Tetrahedron: Asymmetry (2008), 19(11), 1310-1327
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

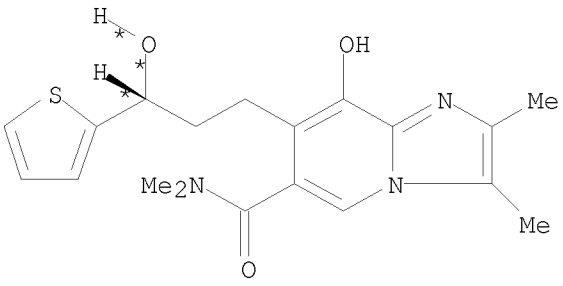
AB The novel complex RuCl2[(S)-Xyl-P-Phos][(S)-DAIPEN] was identified as a highly active catalyst for the asym. reduction of a variety of prochiral ketones possessing an imidazo[1,2-a]pyridine scaffold. The corresponding alcs. were obtained in excellent enantiomeric purities (>96% ee) and served as valuable intermediates for the synthesis of pharmacol. active 7H-8,9-dihydropyrano[2,3-c]imidazo[1,2-a]pyridines. The complexity of these multi-functional substrates required the development of specific reaction conditions. Whereas the reduction with RuCl2[PP][NN] catalysts (Noyori catalysts) has never been reported to occur under aqueous conditions, in the present case, the use of aqueous isopropanol or tert-butanol was not only tolerated, but also turned out to be beneficial, especially when the reduction was conducted at high substrate to catalyst (S/C) ratios.

RX(29) OF 144 ...BJ ===> BO...



BJ

(29)



BO
YIELD 63%

RX(29) RCT BJ 856698-51-6

STAGE(1)
RGT G 865-47-4 2-Propanol, 2-methyl-, potassium salt (1:1)
SOL 67-63-0 2-Propanol, 75-65-0 2-Propanol, 2-methyl-, 7732-18-5 Water
CON 10 minutes, 40 deg C

STAGE(2)
CAT 918129-65-4 Ruthenium, [(3S)-4,4'-bis[bis(3,5-dimethylphenyl)phosphino-κP]-2,2',6,6'-tetramethoxy[3,3'-bipyridine]][(2S)-1,1-bis(4-methoxyphenyl)-3-methyl-1,2-butanediamine-κN1,κN2]dichloro-, (OC-6-14)-
CON 5 minutes, 40 deg C

STAGE(3)
RGT H 1333-74-0 Hydrogen
CON SUBSTAGE(1) 23 hours, 65 deg C, 80 bar
SUBSTAGE(2) 65 deg C -> room temperature

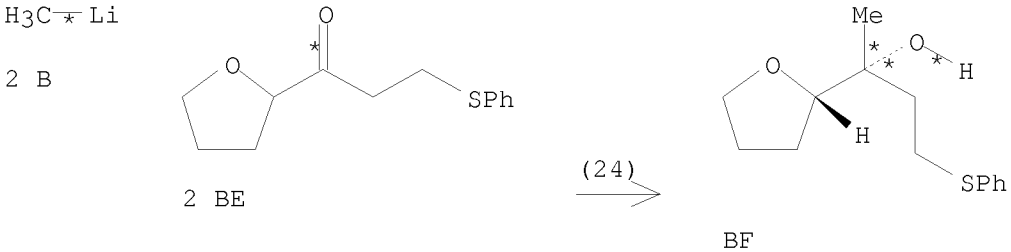
STAGE(4)
RGT I 7647-01-0 Hydrochloric acid, J 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water, 75-09-2 Methane, dichloro-
CON pH 7

PRO BO 960003-34-3

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 18 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:288273 CASREACT
TITLE: Methylaluminum Bis(2,6-di-t-butyl-4-methylphenoxide)
AUTHOR(S): Maruoka, Keiji; Yamamoto, Hisashi; Saito, Susumu
CORPORATE SOURCE: Japan
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Methylaluminum Bis(2,6-di-t-butyl-4-methylphenoxide).

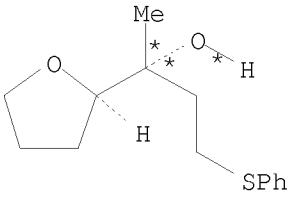
RX(24) OF 32 2 B + 2 BE ===> BF + BG



2 B

2 BE

BF



BG

RX(24) RCT B 917-54-4, BE 157756-87-1

STAGE(1)
CAT 56252-55-2 Aluminum, bis[2,6-bis(1,1-dimethylethyl)-4-methylphenolato]methyl-
SOL 108-88-3 Benzene, methyl-

STAGE(2)
SOL 60-29-7 Ethane, 1,1'-oxybis-
CON -78 deg C

PRO BF 157756-89-3, BG 157756-90-6
NTE Amphiphilic Alkylations

L2 ANSWER 19 OF 73 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 149:267833 CASREACT

TITLE: Rearrangement of 2-hydroxyalkylazetidines into 3-fluoropyrrolidines

AUTHOR(S): Drouillat, Bruno; Couty, Francois; David, Olivier; Evano, Gwilherm; Marrot, Jerome

CORPORATE SOURCE: Institut Lavoisier de Versailles, UMR CNRS 8180, UniverSud Paris, Universite de Versailles Saint Quentin en Yvelines, Versailles, 78035, Fr.

SOURCE: Synlett (2008), (9), 1345-1348
CODEN: SYNLES; ISSN: 0936-5214

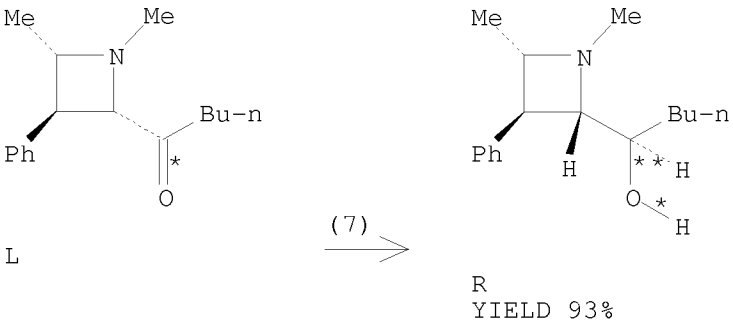
PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Upon treatment with DAST (diethylaminosulfur trifluoride) enantiopure 2-hydroxyalkylazetidines rearrange into 3-fluoropyrrolidines. The reaction is stereospecific and involves a bicyclic 1-azoniabicyclo[2.1.0]pentane intermediate which is regioselectively opened by a fluoride anion.

RX(7) OF 31 ...L ===> R...



L

R

YIELD 93%

RX(7) RCT L 917967-45-4

RGT P 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1), Q 7699-45-8 Zinc bromide (ZnBr2)

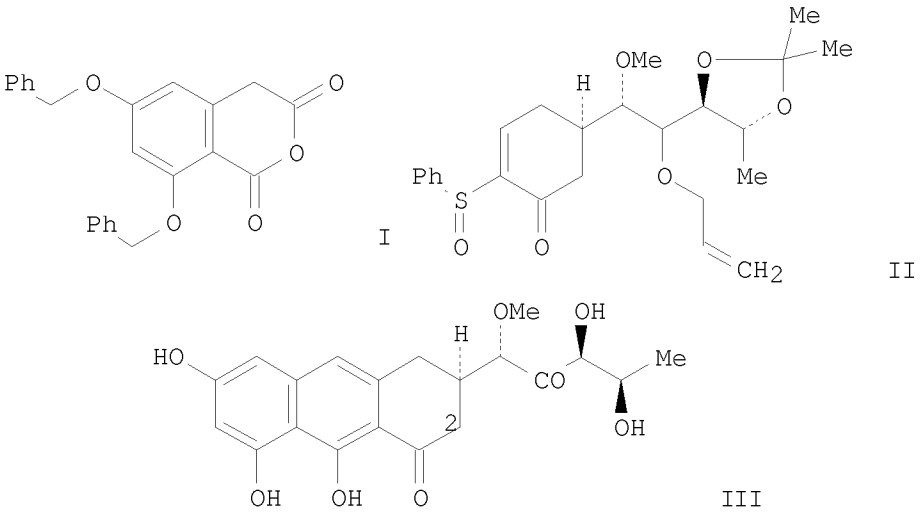
PRO R 1047987-58-5

SOL 64-17-5 Ethanol

NTE stereoselective

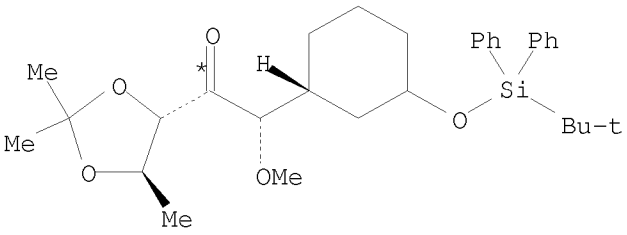
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 20 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:267782 CASREACT
TITLE: Stereoselective synthesis of (+)-2-deoxyolivin based on cycloaddition reaction between the homophthalic anhydride and the chiral cyclohexenone derivative
AUTHOR(S): Haruta, Yoshinari; Onizuka, Kazumitsu; Watanabe, Kyouichi; Kono, Kyoko; Nohara, Akihiro; Kubota, Kenichi; Imoto, Shuhei; Sasaki, Shigeki
CORPORATE SOURCE: Graduate School of Pharmaceutical Sciences, Kyushu University, 3-1-1 Maidashi, Higashi-ku, Fukuoka, 812-8582, Japan
SOURCE: Tetrahedron (2008), 64(30-31), 7211-7218
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



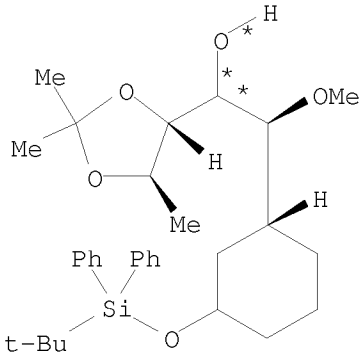
AB The olivomycins are representative antitumor antibiotics in the aureolic family of the compds. which contain the tricyclic aglycon core, olivin. In this study, an efficient synthesis of the anthracenone core skeleton was established based on a cycloaddn. reaction between the homophthalic anhydride I and the chiral cyclohexenone derivative II, which was promoted by the combined use of mol. sieves, proton sponge, and a Lewis acid. The cyclohexenone with four chiral centers was synthesized by asym. and diastereoselective reactions, and was subjected to the cycloaddn. reaction with a homophthalic anhydride followed by a sequence of reactions to accomplish stereoselective synthesis of (+)-2-deoxyolivin (III).

RX(14) OF 338 ...AX ===> BA...



AX

(14)



BA
YIELD 94%

RX(14) RCT AX 1046466-37-8

STAGE(1)
RGT L 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1), M
7790-86-5 Cerium chloride (CeCl3)
SOL 67-56-1 Methanol
CON SUBSTAGE(1) 0 deg C
SUBSTAGE(2) 3 hours, room temperature

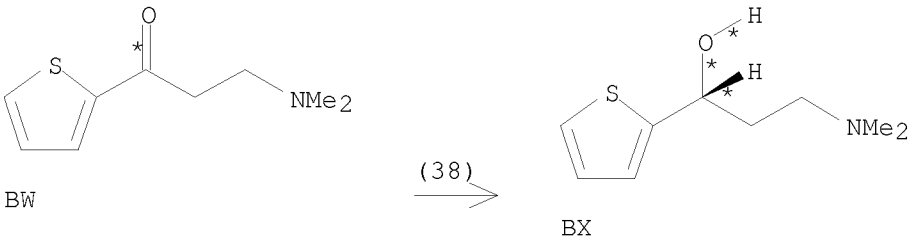
STAGE(2)
RGT N 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water
CON room temperature

PRO BA 1046466-39-0

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 21 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:266782 CASREACT
TITLE: Lithium Aluminum Hydride-2,2'-Dihydroxy-1,1'-binaphthyl
AUTHOR(S): Gopalan, Aravamudan S.; Jacobs, Hollie K.
CORPORATE SOURCE: USA
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article Lithium Aluminum Hydride-2,2'-Dihydroxy-1,1'-binaphthyl.

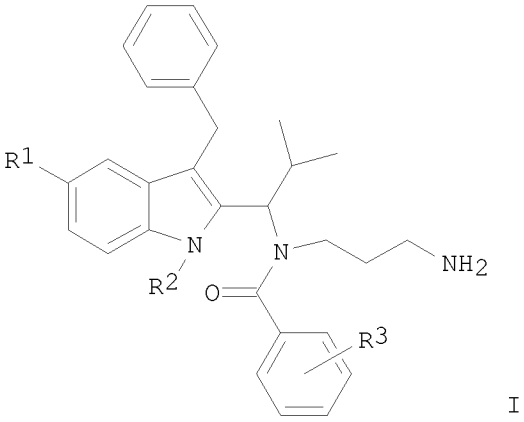
RX(38) OF 38 BW ===> BX



BW BX

RX(38) RCT BW 13196-35-5
PRO BX 132335-49-0
CAT 16853-85-3 Aluminate(1-), tetrahydro-, lithium (1:1), (T-4)-,
38345-66-3 Benzeneethanol, α-[(1R)-2-(dimethylamino)-1-methylethyl]-α-phenyl-, (αS)-
SOL 60-29-7 Ethane, 1,1'-oxybis-
CON 16 hours, -70 deg C
NTE Chiral Amino Alcohol Modifying Agents, multistep transformation

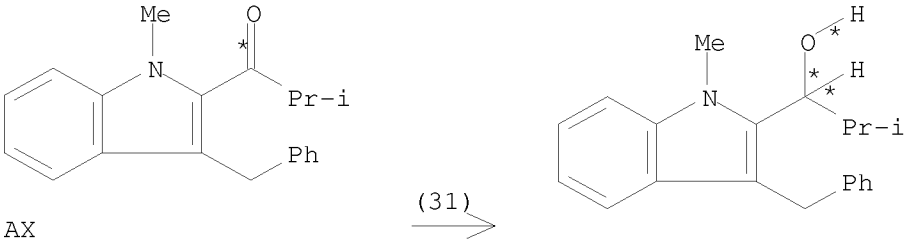
L2 ANSWER 22 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:224009 CASREACT
TITLE: Synthesis and preliminary cytotoxic evaluation of substituted indoles as potential anticancer agents
AUTHOR(S): Shi, Chang Qing; Liu, Zhang Qin; Lin, Wen Qing; Chen, Yuan Wei
CORPORATE SOURCE: Key Laboratory of Asymmetric Synthesis & Chirotechnology of Sichuan Province and Union Laboratory of Asymmetric Synthesis, Chengdu Institute of Organic Chemistry, Chinese Academy of Sciences, Chengdu, 610041, Peop. Rep. China
SOURCE: Chinese Chemical Letters (2007), 18(8), 899-901
CODEN: CCLEE7; ISSN: 1001-8417
PUBLISHER: Chinese Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB The preparation of indole derivs. I (R1= H, 5-Cl; R2 = Me, benzyl, allyl; R3 = 4-F, H, 5-F-2-CH3, 3-F-4 CH3) was reported. The in vitro cytotoxic activities of newly synthesis indole derivs. on tumor cell lines of human epidermoid carcinoma (A431) and non-small cell lung carcinoma (H460)were examined All the examined compds. conferred unusual potency in a tumor cell cytotoxicity assay. The test results showed that the indole derivs. would be a promising candidate for the development of new anticancer agents.

RX(31) OF 303 ...AX ===> AQ...



AX

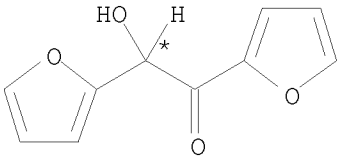
AQ
YIELD 95%

RX(31) RCT AX 1042223-36-8
RGT AY 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO AQ 1042223-32-4
SOL 64-17-5 Ethanol
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 2 hours, room temperature

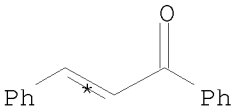
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 23 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:200137 CASREACT
TITLE: 3-Benzyl-4-methyl-1,3-thiazolium Chloride
AUTHOR(S): Kuhlmann, Heinrich
CORPORATE SOURCE: Germany
SOURCE: e-EROS Encyclopedia of Reagents for Organic Synthesis (2001), No pp. given. John Wiley & Sons, Ltd.: Chichester, UK.
CODEN: 69KUHI
URL: http://www3.interscience.wiley.com/cgi-bin/mrwhome/104554785/HOME
DOCUMENT TYPE: Conference; General Review; (online computer file)
LANGUAGE: English
AB A review of the article 3-Benzyl-4-methyl-1,3-thiazolium Chloride.

RX(4) OF 4 N + O ===> P

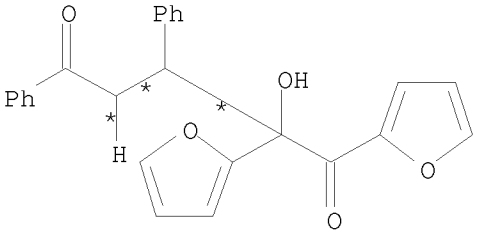


N



O

(4)



P

RX(4) RCT N 552-86-3, O 614-47-1
PRO P 75501-65-4
CAT 4209-18-1 Thiazolium, 4-methyl-3-(phenylmethyl)-, chloride (1:1)
NTE Addition of Aldehydes to Electrophilic Double Bonds, Stage 1: Base

L2 ANSWER 24 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:152933 CASREACT
TITLE: Process for stereoselectively preparing (S)-duloxetine hydrochloride employing resolution of di-p-tolyl-L-tartaric acid salt of precursor (naphthyloxy)(thienyl)propanamine
INVENTOR(S): Patel, Dhimant Jasubhai; Dwivedi, Shriprakash Dhar
PATENT ASSIGNEE(S): Cadila Healthcare Limited, India
SOURCE: PCT Int. Appl., 83pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

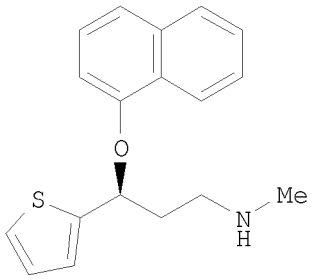
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008081476	A2	20080710	WO 2007-IN632	20071228
WO 2008081476	A3	20081120		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

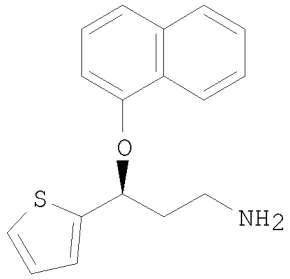
IN 2006MU02168	A	20080919	IN 2006-MU2168	20061229

PRIORITY APPLN. INFO.: IN 2006-MU2168 20061229
GI



HCl

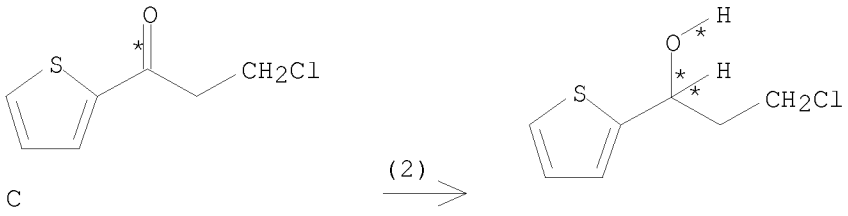
I



II

AB A method for stereoselectively preparing enantiomerically pure S-(+)-duloxetine hydrochloride (I) with high purity is disclosed. I is obtained enantiomerically pure via resolution of 3-(1-naphthyloxy)-3-(2-thienyl)propanamine as a a di-p-tolyl-L-tartaric acid salt to provide the necessary chiral optically pure precursor II which can be methylated to obtain the desired I.

RX(2) OF 33 ...C ===> I...



C

I
YIELD 95%

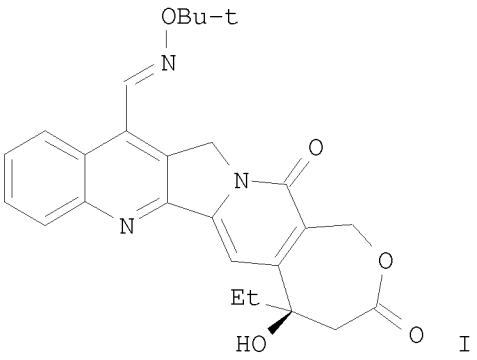
RX(2) RCT C 40570-64-7

STAGE(1)
RGT J 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 75-09-2 Methane, dichloro-
CON SUBSTAGE(1) 25 - 35 deg C
SUBSTAGE(2) 10 - 20 deg C
SUBSTAGE(3) 3 hours

STAGE(2)
RGT K 64-19-7 Acetic acid
SOL 7732-18-5 Water
CON acidify

PRO I 260354-12-9

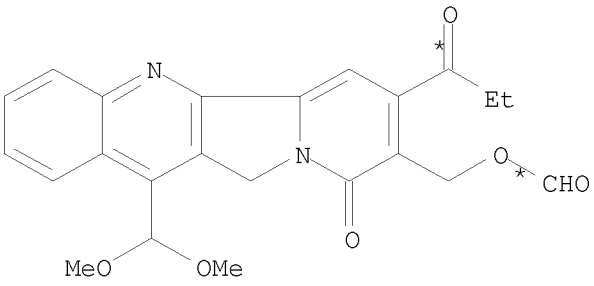
L2 ANSWER 25 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:129008 CASREACT
TITLE: E-ring-modified 7-oxyiminomethyl camptothecins: Synthesis and preliminary in vitro and in vivo biological evaluation
AUTHOR(S): Giannini, Giuseppe; Marzi, Mauro; Cabri, Walter; Marastoni, Elena; Battistuzzi, Gianfranco; Vesci, Loredana; Pisano, Claudio; Beretta, Giovanni Luca; De Cesare, Michelandrea; Zunino, Franco
CORPORATE SOURCE: Sigma-Tau Research & Development, Pomezia, Rome, I-00040, Italy
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(9), 2910-2915
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



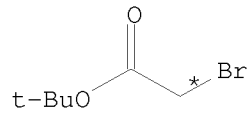
I

AB In contrast to five-membered E-ring analogs, 7-oxyiminomethyl derivs. of homocamptothecins showed ability to form stable ternary complexes with DNA and topoisomerase I. The 7-oxyiminomethyl derivs. of homocamptothecins were evaluated as a racemic mixture Following the isolation of the two enantiomers, the 20 (R)-hydroxy isomer I confirms the best activity. By using a panel of human tumor cells, all tested homocamptothecins showed a potent antiproliferative activity, correlating to the persistence of the cleavable complex. No significant difference was observed between the natural scaffold and the corresponding homocamptothecin homolog. A selected compound of this series exhibited an excellent antitumor activity against human gastrointestinal tumor xenografts.

RX(4) OF 98 ...K + N ===> O...

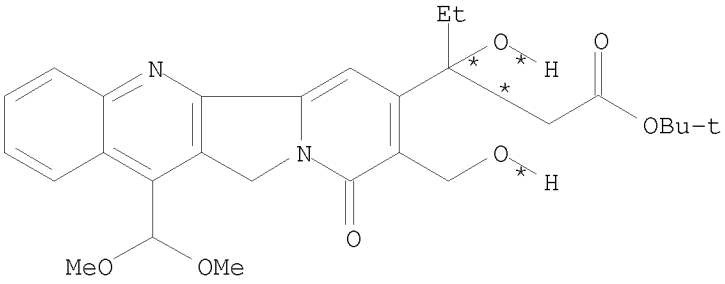


K



N

(4) →



O
YIELD 57%

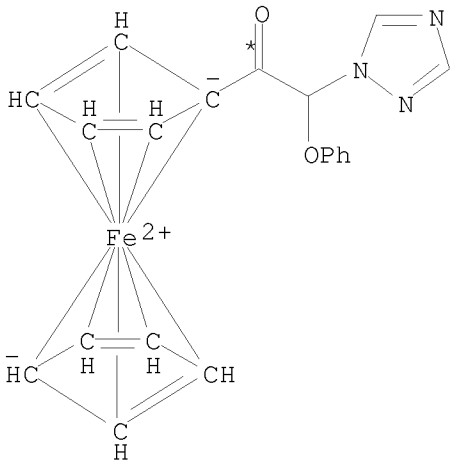
RX(4) RCT K 631870-00-3, N 5292-43-3
RGT P 7440-66-6 Zinc
PRO O 631870-02-5
SOL 60-29-7 Ethane, 1,1'-oxybis-, 109-99-9 Furan, tetrahydro-
CON reflux

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

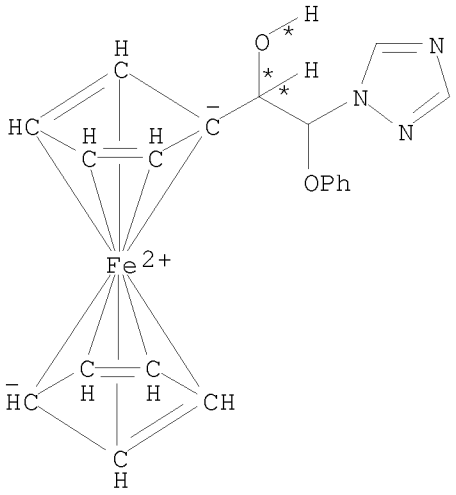
L2 ANSWER 26 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:128942 CASREACT
TITLE: Synthesis and biological evaluation of novel ferrocene-substituted triadimefon- and triadimenol-analogues
AUTHOR(S): Jin, Zhong; Hu, Yan; Shao, Ling; Fang, Jianxin
CORPORATE SOURCE: State Key Laboratory and Institute of Elemento-Organic Chemistry, Nankai University, Tianjin, Peop. Rep. China
SOURCE: Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry (2007), 37(8), 601-604
CODEN: SRIMDO; ISSN: 1553-3174
PUBLISHER: Taylor & Francis, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ferrocenyl analogs of triadimefon and triadimenol fungicides, FcCR1R2CH(Y)OC6H5-nXn (Y = 1H-1,2,4-triazol-1-yl; 6a-h, R1R2 = O, Xn = H, 4-Br, 3-Me-4-Cl, 3-Me-6-Cl, 3,4-Me2, 4-I, 2,6-Cl2, 3-Me; 7a-e, R1 = H, R2 = OH, Xn = H, 4-Br, 3-Me-4-Cl, 3-Me-6-Cl, 3,4-Me2) were prepared by coupling of 1H-1,2,4-triazole with bromoacetylferrocene, followed by α-bromination, etherification with the corresponding phenols HOC6H5-nXn and, in the case of the compds. 7, NaBH4 reduction The compds. 6 and 7 show low fungicide activity; the ketones 7 exhibit plant growth regulation activity comparative to that of the triadimefon prototype.

RX(9) OF 18 ...C ===> V



C (9) →



V
YIELD 65%

RX(9) RCT C 945530-56-3

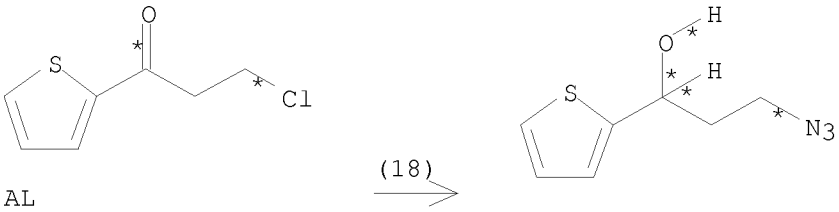
STAGE(1)
RGT W 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 67-56-1 Methanol, 75-05-8 Acetonitrile
CON SUBSTAGE(1) <0 deg C
SUBSTAGE(2) 30 minutes, room temperature

STAGE(2)
RGT X 7647-01-0 Hydrochloric acid
SOL 7732-18-5 Water
CON cooled, pH 7

PRO V 945530-76-7
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 27 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:126656 CASREACT
TITLE: Synthesis of enantiomerically pure γ-azidoalcohols by lipase-catalyzed transesterification
AUTHOR(S): Kamal, Ahmed; Malik, M. Shaheer; Shaik, Ahmad Ali; Azeeza, Shaik
CORPORATE SOURCE: Biotransformation Laboratory, Division of Organic Chemistry, Indian Institute of Chemical Technology, Hyderabad, 500 007, India
SOURCE: Tetrahedron: Asymmetry (2008), 19(9), 1078-1083
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An enantioselective synthesis of chiral γ-azidoalcs. via lipase-catalyzed resolution is described. The efficiency of various lipases and the effect of different solvents have been studied. Pseudomonas cepacia immobilized on diatomaceous earth (PS-D) in n-hexane catalyzed the transesterification process in an efficient manner providing γ-azidoalcs. in high enantiomeric excess.

RX(18) OF 36 ...AL ===> T...



AL

T
YIELD 82%

RX(18) RCT AL 40570-64-7

STAGE(1)
RGT AM 26628-22-8 Sodium azide (Na(N3))
CAT 17455-13-9 1,4,7,10,13,16-Hexaoxacyclooctadecane
CON 8 - 10 hours, room temperature

STAGE(2)
RGT AN 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
CON SUBSTAGE(1) 0 deg C
SUBSTAGE(2) 2 hours, room temperature

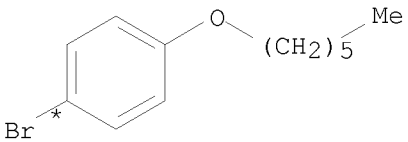
PRO T 1036715-70-4
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 28 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:118670 CASREACT
TITLE: Novel echinocandin antifungals. Optimization of the side chain of the natural product FR901379. Discovery of micafungin
AUTHOR(S): Tomishima, Masaki; Ohki, Hidenori; Yamada, Akira; Maki, Katsuyuki; Ikeda, Fumiaki
CORPORATE SOURCE: Medicinal Chemistry Research Laboratories, Astellas Pharma Inc., 2-1-6 Kashima, Yodogawa-ku, Osaka, 532-8514, Japan
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(9), 2886-2890
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

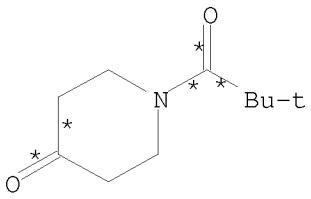
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Further optimization of the potent antifungal activity of side chain analogs of the natural product FR901379 led to the discovery of compound (I) with an excellent, well-balanced profile. Potent compds. with reduced hemolytic potential were designed based upon a disruption of the linearity of the terphenyl lipophilic side chain. The optimized compound I (FK463, micafungin) displayed the best balance and was selected as the clin. candidate.

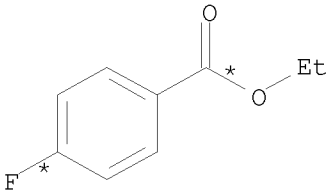
RX(125) OF 128 COMPOSED OF RX(26), RX(27), RX(28), RX(29), RX(30), RX(8), RX(14)
RX(125) BD + BE + AX + T + R ===> AL



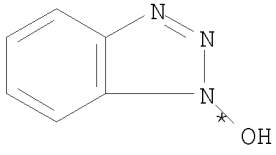
BD



BE



AX



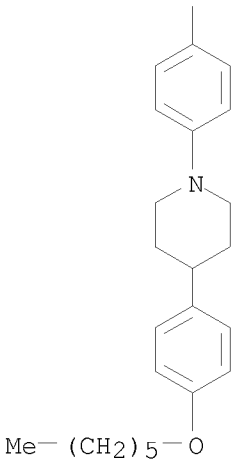
T

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

7
STEPS

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

PAGE 2-A



AL
YIELD 76%

RX(26) RCT BD 30752-19-3, BE 71072-37-2
RGT BG 7439-95-4 Magnesium
PRO BF 208537-37-5
SOL 60-29-7 Ethane, 1,1'-oxybis-

RX(27) RCT BF 208537-37-5
RGT BJ 76-05-1 Acetic acid, 2,2,2-trifluoro-
PRO BI 208537-22-8
SOL 75-09-2 Methane, dichloro-

RX(28) RCT BI 208537-22-8, AX 451-46-7
RGT AS 584-08-7 Carbonic acid, potassium salt (1:2)
PRO BK 208537-54-6
SOL 67-68-5 Methane, 1,1'-sulfinylbis-

RX(29) RCT BK 208537-54-6
RGT BM 1333-74-0 Hydrogen
PRO BL 208537-40-0
CAT 7440-05-3 Palladium
SOL 109-99-9 Furan, tetrahydro-

RX(30) RCT BL 208537-40-0
RGT Q 1310-73-2 Sodium hydroxide (Na(OH))
PRO AB 208537-63-7
SOL 64-17-5 Ethanol, 109-99-9 Furan, tetrahydro-

RX(8) RCT AB 208537-63-7, T 2592-95-2
RGT U 25952-53-8 1,3-Propanediamine,
N3-(ethylcarbonimidoyl)-N1,N1-dimethyl-, hydrochloride (1:1)
PRO AC 208537-97-7

SOL 75-09-2 Methane, dichloro-

RX(14) RCT R 168110-44-9, AC 208537-97-7
PRO AL 1037032-25-9
CAT 1122-58-3 4-Pyridinamine, N,N-dimethyl-
SOL 68-12-2 Formamide, N,N-dimethyl-
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 29 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:104587 CASREACT
TITLE: Process for preparation of duloxetine and intermediates thereof
INVENTOR(S): Pospisilik, Karel; Dymacek, Bohumil
PATENT ASSIGNEE(S): Synthon B.V., Neth.
SOURCE: PCT Int. Appl., 32pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

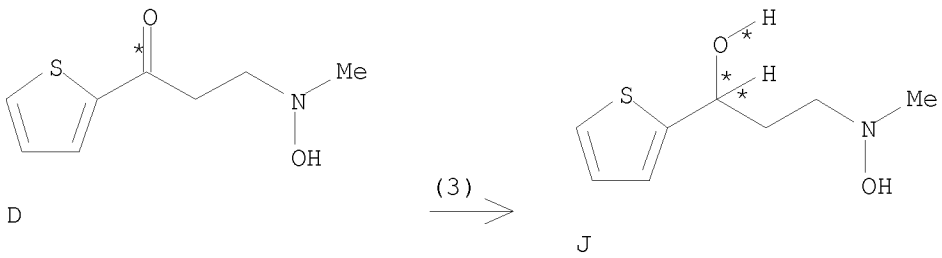
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008077645	A1	20080703	WO 2007-EP11485	20071219
US 20080171887	A1	20080717	US 2007-4294	20071220

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2006-871626P 20061222

AB This invention pertains to a process for the preparation of duloxetine and intermediates thereof. For example, 2-acetylthiophene was condensed with N-methylhydroxylamine hydrochloride and paraformaldehyde in ethanol under nitrogen in presence of 36% hydrochloric acid under reflux to give an intermediate, which was reduced with sodium borohydride and then treated with zinc in glacial acetic acid and water at 50 °C to afford N-methyl-γ-hydroxy-2-thiophenepropanamine ethanedioate (1:1). The ethanedioate salt obtained above was treated with sodium hydride in a mixture of DMSO and THF under nitrogen atmospheric, and then reacted with 1-fluoronaphthalene at 60 °C for 44 h to afford duloxetine as ethanedioate salt. Process for the preparation of optically pure duloxetine was also disclosed in the invention.

RX(3) OF 28 ...D ===> J



D J

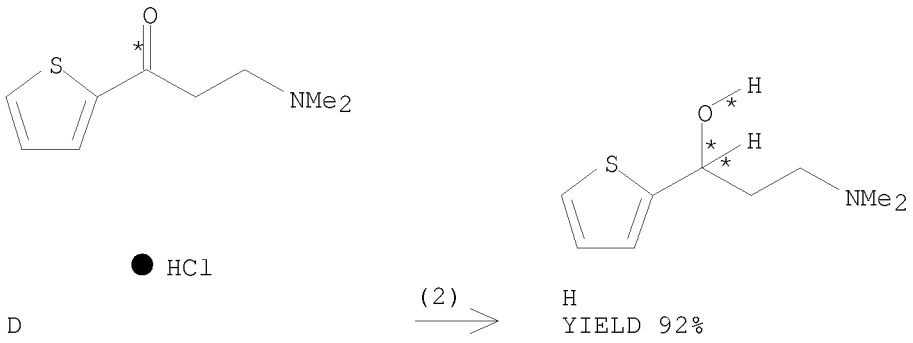
RX(3) RCT D 1035456-51-9
RGT K 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO J 1035456-53-1

SOL 7732-18-5 Water, 64-17-5 Ethanol
CON 16 hours, room temperature
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 30 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:79425 CASREACT
TITLE: Synthesis of antidepressant drug duloxetine hydrochloride
AUTHOR(S): Chai, Yu-zhu; Cheng, Guo-hua; Wang, Li; Fan, Lin
CORPORATE SOURCE: Department of Medicinal Chemistry, China Pharmaceutical University, Nanjing, 210009, Peop. Rep. China
SOURCE: Zhongguo Xiandai Yingyong Yaoxue (2007), 24(3), 209-211
CODEN: ZXYYAI; ISSN: 1007-7693
PUBLISHER: Zhongguo Xiandai Yingyong Yaoxue Zazhi Bianji Weiyuanhui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB A method for the synthesis of duloxetine hydrochloride [i.e., (γS)-N-methyl-γ-(1-naphthalenyloxy)-2-thiophenepropanamine] is reported here. Duloxetine hydrochloride was synthesized via a sequence involving a Mannich reaction, reduction, separation, etherification, demethylation and salt formation using 2-acetylthiophene as reactant. The chemical structure of duloxetine hydrochloride was confirmed by elemental anal., UV, IR, 1HNMR, 13CNMR and ESI-MS etc. This process can be easily controlled and is suitable for a larger-scale manufacture of duloxetine hydrochloride.

RX(2) OF 6 ...D ===> H



D (2) H
YIELD 92%

RX(2) RCT D 5424-47-5

STAGE(1)
RGT I 1310-73-2 Sodium hydroxide (Na(OH))
SOL 7732-18-5 Water, 64-17-5 Ethanol
CON SUBSTAGE(1) pH 12
SUBSTAGE(2) room temperature -> 0 deg C

STAGE(2)
RGT J 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
CON SUBSTAGE(1) 30 minutes, 0 deg C
SUBSTAGE(2) 6 hours, room temperature

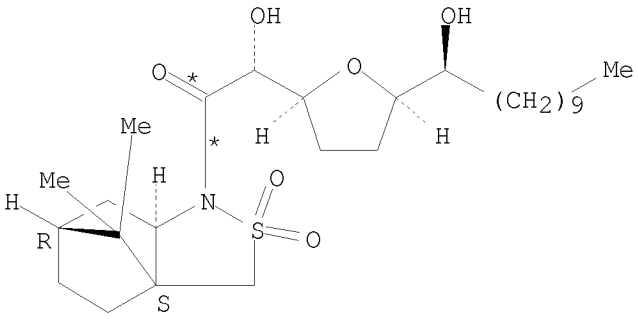
PRO H 13636-02-7

L2 ANSWER 31 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:79397 CASREACT
TITLE: Total Synthesis of cis-Sylvaticin
AUTHOR(S): Brown, Lynda J.; Spurr, Ian B.; Kemp, Stephen C.; Camp, Nicholas P.; Gibson, Karl R.; Brown, Richard C. D.
CORPORATE SOURCE: School of Chemistry, University of Southampton, Southampton, SO17 1BJ, UK
SOURCE: Organic Letters (2008), 10(12), 2489-2492
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

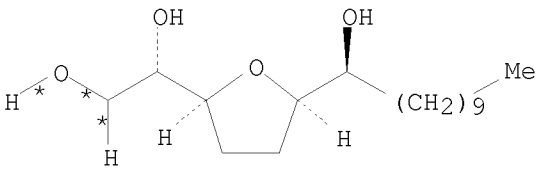
AB An asym. total synthesis of (+)-cis-sylvaticin [I, X = (CH2)7, Y = (CH2)9] is described. Key steps include the use of permanganate-mediated oxidative cyclization of 1,5-dienes to synthesize the two major fragments II and III and a catalytically efficient tethered RCM to unite these THF-containing fragments. In addition, tert-BuP4 base was found to reliably promote rapid alkylation of the butenolide precursor fragment IV.

RX(3) OF 349 ...G ===> M...



G

(3)



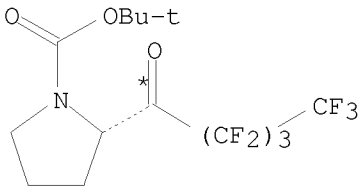
M
YIELD 90%

RX(3) RCT G 1033883-48-5
RGT N 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO M 1033883-58-7
SOL 7732-18-5 Water, 109-99-9 Furan, tetrahydro-

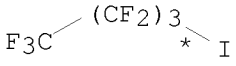
CON SUBSTAGE(1) 0 deg C
SUBSTAGE(2) 2 hours
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 32 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:54224 CASREACT
TITLE: Asymmetric synthesis of (αR)-polyfluoroalkylated prolinols based on the perfluoroalkyl-induced highly stereoselective reduction of perfluoroalkyl N-Boc-pyrrolidyl Ketones
AUTHOR(S): Funabiki, Kazumasa; Shibata, Akitsugu; Iwata, Hiroki; Hatano, Keisuke; Kubota, Yasuhiro; Komura, Kenichi; Ebihara, Masahiro; Matsui, Masaki
CORPORATE SOURCE: Department of Materials Science and Technology and Department of Chemistry, Faculty of Engineering, Gifu University, 1-1 Yanagido, Gifu, 501-1193, Japan
SOURCE: Journal of Organic Chemistry (2008), 73(12), 4694-4697
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Reduction of the obtained chiral (S)-tert-Bu 2-(perfluoroalkanoyl)pyrrolidine-1-carboxylate with sodium borohydride or lithium aluminum hydride proceeded smoothly to give the corresponding (S)-tert-Bu 2-((R)-perfluoro-1-hydroxyalkyl)pyrrolidine-1-carboxylate in yields of 73-97% with excellent diastereoselectivities (up to >98% de), compared with the reduction of nonfluorinated (S)-tert-Bu 2-pentanoylpyrrolidine-1-carboxylate.

RX(6) OF 36 ...C + B ===> X...

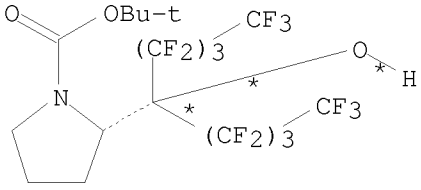


C



B

(6)



X
YIELD 55%

RX(6) RCT C 1032171-68-8, B 423-39-2

STAGE(1)
SOL 60-29-7 Ethane, 1,1'-oxybis-
CON 20 minutes, room temperature

STAGE(2)
RGT D 332360-06-2 Lithium, methyl-, compd. with lithium bromide (LiBr) (1:1)

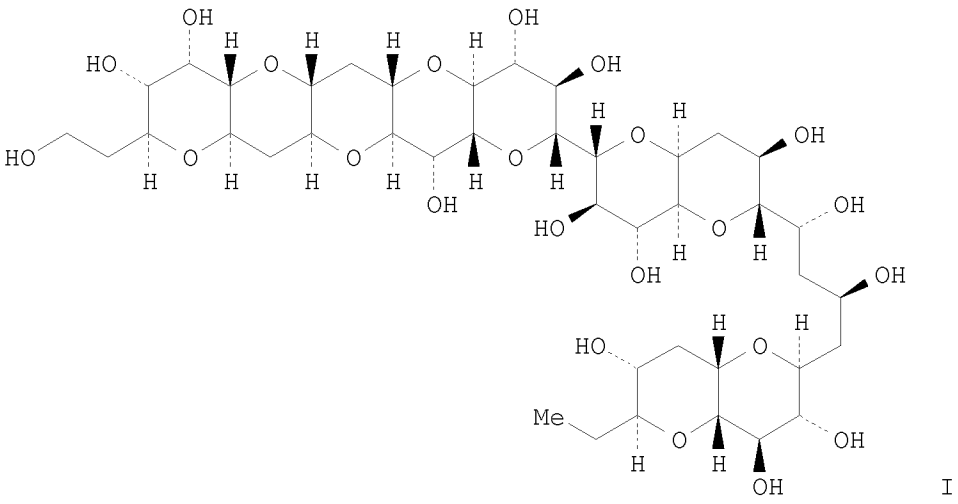
SOL 60-29-7 Ethane, 1,1'-oxybis-
CON 2 hours, -78 deg C

STAGE(3)
RGT E 7647-01-0 Hydrochloric acid, F 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water
CON -78 deg C

PRO X 1032171-80-4

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

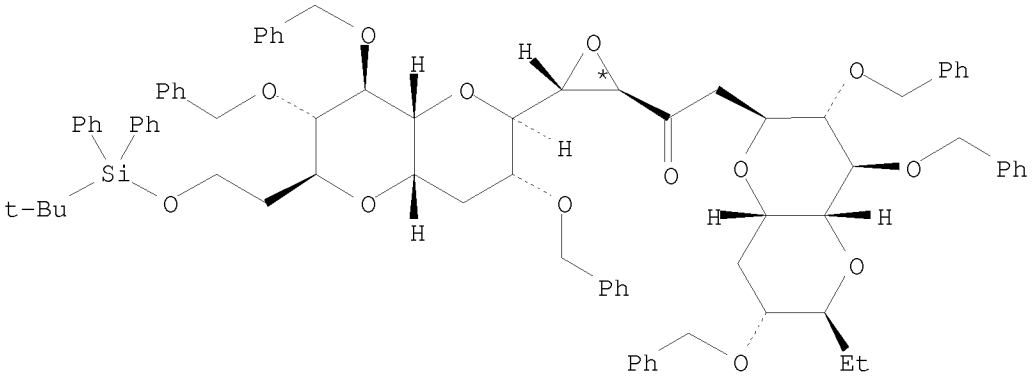
L2 ANSWER 33 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:53778 CASREACT
TITLE: Chemical Synthesis of the GHIJKLMNO Ring System of Maitotoxin
AUTHOR(S): Nicolaou, K. C.; Frederick, Michael O.; Burtoloso, Antonio C. B.; Denton, Ross M.; Rivas, Fatima; Cole, Kevin P.; Aversa, Robert J.; Gibe, Romelo; Umezawa, Taiki; Suzuki, Takahiro
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Journal of the American Chemical Society (2008), 130(23), 7466-7476
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

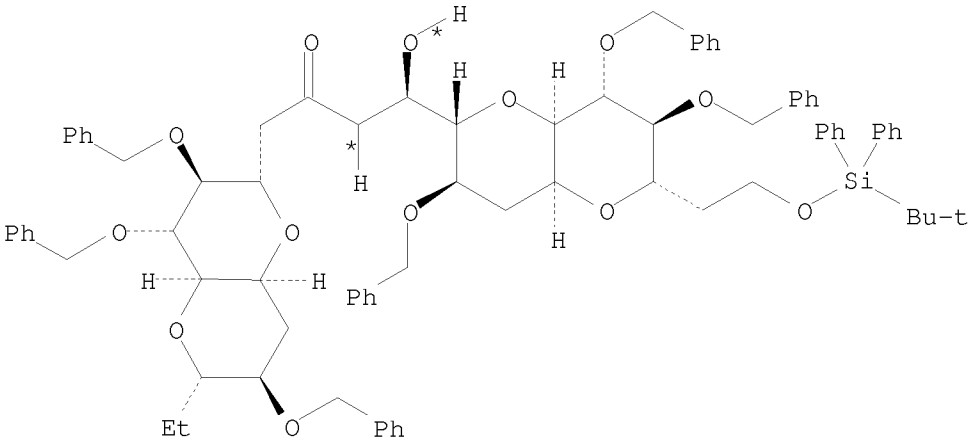
AB As the largest secondary metabolite to be discovered as of yet, the polyether marine neurotoxin maitotoxin constitutes a major structural and synthetic challenge. After its originally proposed structure had been questioned on the basis of biosynthetic considerations, we provided computational and exptl. support for the structure. In an effort to provide stronger exptl. evidence of the mol. architecture of maitotoxin, its GHIJKLMNO ring system I was synthesized. The 13C NMR chemical shifts of synthetic I matched closely those corresponding to the same domain of the natural product providing strong evidence for the correctness of the originally proposed structure of maitotoxin.

RX(19) OF 730 ...BR ===> BS...



BR

(19)



BS
YIELD 96%

RX(19) RCT BR 1032724-49-4

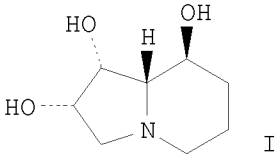
STAGE(1)
RGT BT 32248-43-4 Samarium iodide (SmI2)
SOL 67-56-1 Methanol, 109-99-9 Furan, tetrahydro-
CON 5 minutes, 0 deg C

STAGE(2)
RGT U 7647-14-5 Sodium chloride (NaCl)
SOL 7732-18-5 Water
CON 0 deg C

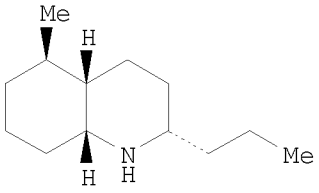
PRO BS 1032724-50-7

REFERENCE COUNT: 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 34 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 149:32451 CASREACT
TITLE: An exhaustive hydrogenation strategy to bicyclic alkaloids
AUTHOR(S): Kartika, Rendy; Taylor, Richard E.
CORPORATE SOURCE: University of Notre Dame, USA
SOURCE: Chemtracts (2006), 19(10), 385-390
CODEN: CHEMFW; ISSN: 1431-9268
PUBLISHER: Data Trace Publishing Co.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



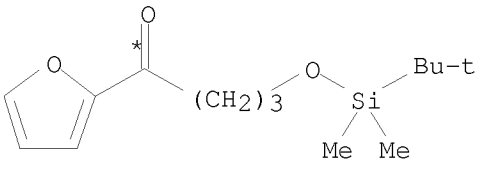
I



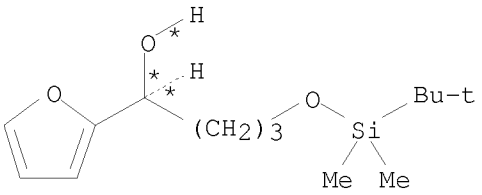
II

AB The use of an exhaustive hydrogenation strategy in the total syntheses of bicyclic alkaloids was established. The two examples presented included the total synthesis of (+)-swainsonine (I) and pumiliotoxin C (II). A common theme in these syntheses involves deprotection of key functional groups under hydrogenation leading to the formation of iminium ion, which was then further reduced under the reaction condition to the annulation products. In order for this strategy to work successfully, several aspects must be taken into consideration. First, a proper choice of protective groups and their timely deprotection under a single condition, thus unmasking the reactive functionalities, must be planned carefully. In the swainsonine case, exposure to hydrogenation converted azide to amine and benzyl ether to hemiacetal, and this yielded an unprecedented aminoaldehyde adduct through rearrangement in a one-step process, whereas with pumiliotoxin C, hydrogenation saturated two olefins and removed a protecting group, thus leading to a reactive aminoketone intermediate. Second, the deprotection conditions must not hinder the reactivity of newly exposed functionality. In the swainsonine case, intramol. condensation between the secondary amine and the aldehyde to the corresponding iminium ion readily occurred. However, in pumiliotoxin C, such a reaction appeared to be slow, and an introduction of HCl was necessary for efficient cyclization. Finally, stereoselective reduction of the resulting iminium ion may be achieved if the conformation of such an intermediate allows facial differentiation.

RX(4) OF 97 ...L ===> N...



L (4) ⟶



N
YIELD 89%

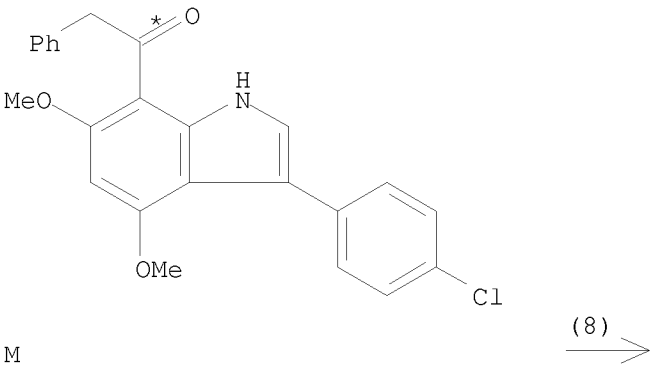
RX(4) RCT L 691870-87-8
RGT O 121-44-8 Ethanamine, N,N-diethyl-, P 64-18-6 Formic acid
PRO N 886852-57-9
CAT 1030838-46-0 Ruthenium, [[N,N'-[(1S,2S)-1,2-diphenyl-1,2-ethanediyl]bis[4-methylbenzenesulfonamidato-κN]](2-)][(1,2,3,4,5,6-η)-1,3,5-trimethylbenzene]-
CON room temperature
NTE stereoselective, Noyori condition
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 35 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:538012 CASREACT
TITLE: Synthesis of new indole benzylic alcohols as potential precursors of calixindoles
AUTHOR(S): Black, David St. C.; Kumar, Naresh; Wahyuningsih, Tutik Dwi
CORPORATE SOURCE: School of Chemistry, The University of New South Wales, Sydney, NSW, 2052, Australia
SOURCE: ARKIVOC (Gainesville, FL, United States) (2008), (6), 42-51
CODEN: AGFUAR
URL: http://content.arkat-usa.org/ARKIVOC/JOURNAL_CONTENT/manuscripts/2008/TN-2968NP%20as%20published%20mainmanuscript.pdf
PUBLISHER: Arkat USA Inc.
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
GI

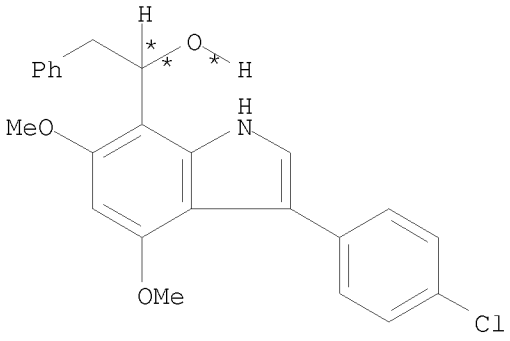
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 3-(4-Chlorophenyl)-4,6-dimethoxyindole (I) was converted to the 7- and 2-substituted glyoxylamide derivs. (II and III), which were in turn reduced by sodium borohydride to benzylic alcs. (IV and V). Indole I was also acylated via a Houben-Hoesch reaction with benzyl cyanides to give 7-substituted methylene ketones (VI; R = H, OH, OMe), which were also reduced by sodium borohydride to benzylic alcs. (VII, same R). All the benzylic alcs. were subjected to a variety of acidic conditions, but failed to generate calixindoles.

RX(8) OF 15 ...M ===> U



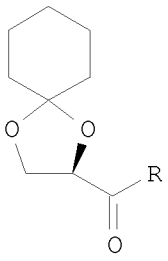
M



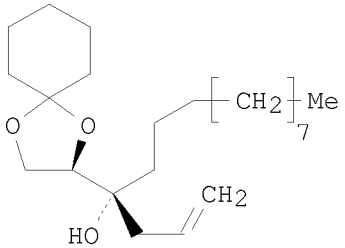
U
YIELD 94%

RX(8) RCT M 1025055-05-3
RGT H 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO U 1025055-15-5
SOL 67-56-1 Methanol
CON 30 minutes, reflux
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

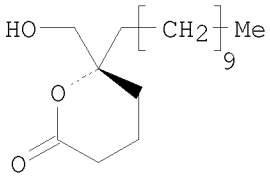
L2 ANSWER 36 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:537947 CASREACT
TITLE: Organometallation of (R)-2,3-cyclohexylideneglyceraldehyde derived ketones: a simple and stereoselective strategy for the synthesis of (+)-tanikolide
AUTHOR(S): Vichare, Prasad; Chattopadhyay, Angshuman
CORPORATE SOURCE: Bio-Organic Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India
SOURCE: Tetrahedron: Asymmetry (2008), 19(5), 598-602
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



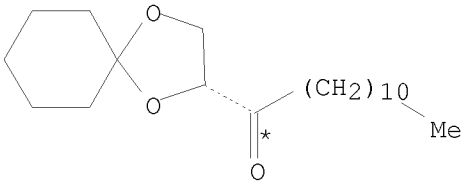
II



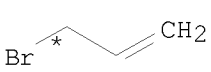
III

AB Several metal mediated allylations and Grignard addns. to ketones I (R = C11H23, CH2CH:CH2), both derived from (R)-2,3-cyclohexylideneglyceraldehyde, took place with very high diastereoselectivity producing the same tertiary carbinol II as the major product. Subsequently, II was exploited to synthesize (+)-tanikolide III efficiently through a series of simple reactions employing an ring-closing metathesis strategy.

RX(2) OF 43 ...2 C + 2 H ===> I + J...

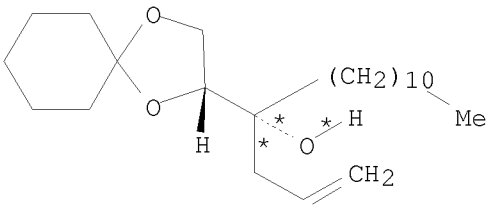


2 C

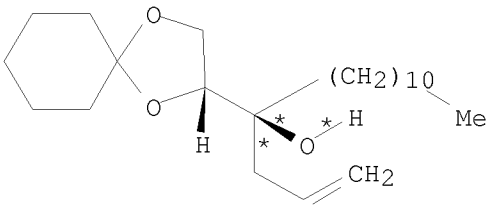


2 H

(2) →



I
YIELD 84%(92)

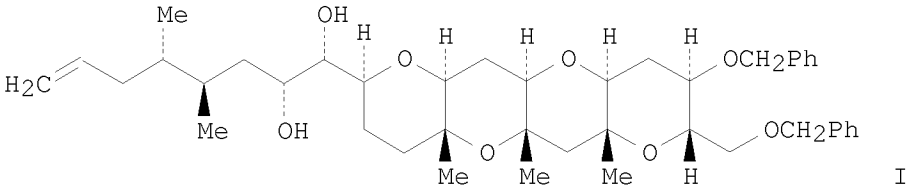


J
YIELD 84%(8)

RX(2) RCT C 1024006-16-3, H 106-95-6
RGT K 7440-66-6 Zinc, L 7705-08-0 Iron chloride (FeCl3)
PRO I 1024006-18-5, J 1024006-24-3
CON SUBSTAGE(1) 15 minutes, room temperature
SUBSTAGE(2) 40 minutes, room temperature
NTE alternative preparation shown, optimization study (optimized on metal salts), stereoselective

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

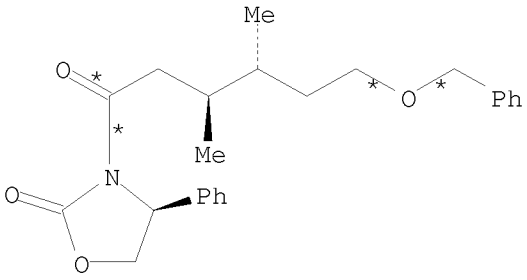
L2 ANSWER 37 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:517443 CASREACT
TITLE: Synthetic Studies on Maitotoxin. 1. Stereoselective Synthesis of the C'D'E'F'-Ring System Having a Side Chain
AUTHOR(S): Morita, Masayuki; Ishiyama, Seishi; Koshino, Hiroyuki; Nakata, Tadashi
CORPORATE SOURCE: RIKEN (The Institute of Physical and Chemical Research), 1-2 Hirosawa, Wako-shi, Saitama, 351-0198, Japan
SOURCE: Organic Letters (2008), 10(9), 1675-1678
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



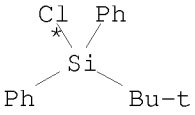
I

AB The stereoselective synthesis of the maitotoxin C'D'E'F'-ring system I having a side chain has been accomplished through a convergent strategy. The key reactions include Horner-Wadsworth-Emmons coupling of the C'D'E'-ring and the side chain and subsequent construction of the F'-ring by silane reduction of dihydropyran.

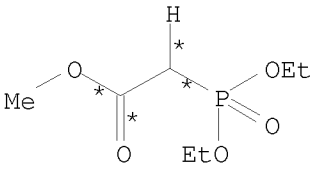
RX(248) OF 324 COMPOSED OF RX(9), RX(11), RX(13), RX(14), RX(15), RX(16), RX(20), RX(23), RX(25), RX(26)
RX(248) AH + AM + AV + BD + BG + BT + CE ===> CG



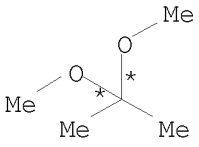
AH



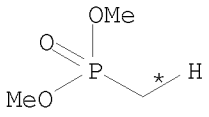
AM



AV



BD



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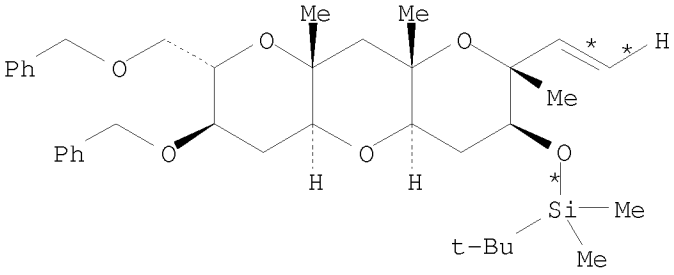

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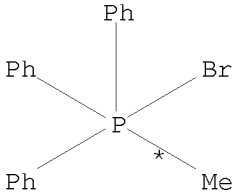
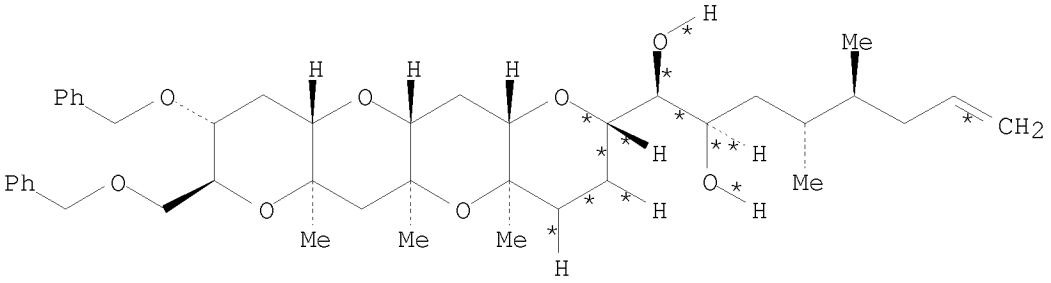


CE

10
STEPS



CG
YIELD 81%

RX(9) RCT AH 1021866-80-7

STAGE(1)
RGT AL 16853-85-3 Aluminate(1-), tetrahydro-, lithium (1:1), (T-4)-
SOL 67-56-1 Methanol
CON SUBSTAGE(1) 1 hour, 0 deg C
SUBSTAGE(2) 12 hours, room temperature

STAGE(2)
RGT N 1310-73-2 Sodium hydroxide (Na(OH))

```
            SOL  7732-18-5 Water
            CON  room temperature

         PRO  AK 1021866-81-8

RX(11)   RCT  AK 1021866-81-8, AM 58479-61-1

           STAGE(1)
            RGT  AO 288-32-4 1H-Imidazole
            SOL  68-12-2 Formamide, N,N-dimethyl-
            CON  SUBSTAGE(1) 0 deg C
                 SUBSTAGE(2) 4 hours, room temperature

           STAGE(2)
            RGT  AR 1625-91-8 1,1'-Biphenyl, 4,4'-bis(1,1-dimethylethyl)-,
                 AS 7439-93-2 Lithium
            SOL  109-99-9 Furan, tetrahydro-
            CON  5 hours, room temperature

           STAGE(3)
            SOL  109-99-9 Furan, tetrahydro-
            CON  2 hours, -78 deg C

           STAGE(4)
            RGT  V 12125-02-9 Ammonium chloride ((NH4)Cl)
            SOL  7732-18-5 Water
            CON  0 deg C

         PRO  AQ 1021866-82-9
         NTE  crude from stage 2 added in stage 3

RX(13)   RCT  AQ 1021866-82-9

           STAGE(1)
            RGT  AU 87413-09-0 Acetic acid,
                 1,1',1''-(3-oxo-1λ5-1,2-benziodoxol-1(3H)-ylidyne)
                 ester
            SOL  75-09-2 Methane, dichloro-
            CON  1 hour, 0 deg C

           STAGE(2)
            RGT  D 144-55-8 Carbonic acid sodium salt (1:1)
            SOL  7732-18-5 Water
            CON  0 deg C

           STAGE(3)
            RCT  AV 1067-74-9
            RGT  AX 865-47-4 2-Propanol, 2-methyl-, potassium salt (1:1)
            SOL  109-99-9 Furan, tetrahydro-
            CON  SUBSTAGE(1) 0 deg C
                 SUBSTAGE(2) 1 hour, 25 deg C
                 SUBSTAGE(3) 25 deg C -> -78 deg C

           STAGE(4)
            SOL  109-99-9 Furan, tetrahydro-
            CON  30 minutes, -78 deg C

           STAGE(5)
            RGT  V 12125-02-9 Ammonium chloride ((NH4)Cl)
            SOL  7732-18-5 Water
            CON  -78 deg C
```

PRO AW 1021866-83-0
NTE crude from stage 1 ,2 added in stage 4, stereoselective

RX(14) RCT AW 1021866-83-0

STAGE(1)
RGT AZ 148618-32-0 AD-mix-β, BA 3144-09-0 Methanesulfonamide
SOL 7732-18-5 Water, 75-65-0 2-Propanol, 2-methyl-
CON 12 hours, 0 deg C

STAGE(2)
RGT BB 7757-83-7 Sulfurous acid, sodium salt (1:2)
SOL 7732-18-5 Water
CON 0 deg C

PRO AY 1021866-84-1
NTE stereoselective

RX(15) RCT AY 1021866-84-1, BD 77-76-9

STAGE(1)
CAT 24057-28-1 Benzenesulfonic acid, 4-methyl-, compd. with pyridine (1:1)
SOL 68-12-2 Formamide, N,N-dimethyl-
CON 1.5 days, room temperature

STAGE(2)
RGT D 144-55-8 Carbonic acid sodium salt (1:1)
SOL 7732-18-5 Water
CON 0 deg C

PRO BE 1021866-85-2

RX(16) RCT BG 756-79-6

STAGE(1)
RGT BI 109-72-8 Lithium, butyl-
SOL 109-99-9 Furan, tetrahydro-, 110-54-3 Hexane
CON 5 minutes, -78 deg C

STAGE(2)
RCT BE 1021866-85-2
SOL 109-99-9 Furan, tetrahydro-
CON 2 hours, -78 deg C

STAGE(3)
RGT V 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water
CON -78 deg C

PRO BH 1021866-86-3

RX(20) RCT BT 1021866-78-3

STAGE(1)
RGT BV 10028-15-6 Ozone
SOL 75-09-2 Methane, dichloro-
CON 1 minute, -78 deg C

STAGE(2)
RGT AI 75-18-3 Methane, 1,1'-thiobis-

```
            CON  30 minutes, -78 deg C

          STAGE(3)
            RCT  BH 1021866-86-3
            RGT  U 7646-69-7 Sodium hydride (NaH)
            SOL  109-99-9 Furan, tetrahydro-, 68-12-2 Formamide,
                 N,N-dimethyl-
            CON  SUBSTAGE(1) 0 deg C
                 SUBSTAGE(2) 10 minutes, 0 deg C
                 SUBSTAGE(3) 0 deg C -> room temperature
                 SUBSTAGE(4) 10 minutes, room temperature

          STAGE(4)
            SOL  109-99-9 Furan, tetrahydro-
            CON  SUBSTAGE(1) 0 deg C
                 SUBSTAGE(2) 3 days, room temperature

          STAGE(5)
            RGT  V 12125-02-9 Ammonium chloride ((NH4)Cl)
            SOL  7732-18-5 Water
            CON  0 deg C

        PRO  BU 1021866-89-6
        NTE  crude from stage 1 ,2  added in stage 4, stereoselective

RX(23)  RCT  BU 1021866-89-6

          STAGE(1)
            RGT  BX 1333-74-0 Hydrogen
            CAT  7440-05-3 Palladium
            SOL  141-78-6 Acetic acid ethyl ester
            CON  2 days, room temperature

          STAGE(2)
            RGT  CA 429-41-4 1-Butanaminium, N,N,N-tributyl-, fluoride (1:1)
            SOL  109-99-9 Furan, tetrahydro-
            CON  22 hours, room temperature

          STAGE(3)
            RGT  CC 928209-02-3 Nafion H-NR 50
            SOL  75-09-2 Methane, dichloro-
            CON  22 hours, room temperature

        PRO  CB 1021866-91-0
        NTE  molecular sieves used

RX(25)  RCT  CB 1021866-91-0

          STAGE(1)
            RGT  AU 87413-09-0 Acetic acid,
                 1,1',1''-(3-oxo-1λ5-1,2-benziodoxol-1(3H)-ylidyne)
                 ester
            SOL  75-09-2 Methane, dichloro-
            CON  SUBSTAGE(1) 10 minutes, 0 deg C
                 SUBSTAGE(2) 0 deg C -> room temperature
                 SUBSTAGE(3) 90 minutes, room temperature

          STAGE(2)
            RGT  D 144-55-8 Carbonic acid sodium salt (1:1)
            SOL  7732-18-5 Water
            CON  room temperature
```

```
            STAGE(3)
               RCT  CE 27200-84-6
               RGT  AF 1070-89-9 Silanamine,
                    1,1,1-trimethyl-N-(trimethylsilyl)-, sodium salt (1:1)
               SOL  109-99-9 Furan, tetrahydro-
               CON  1 hour, 0 deg C

            STAGE(4)
               SOL  109-99-9 Furan, tetrahydro-
               CON  15 minutes, 0 deg C

            STAGE(5)
               RGT  V 12125-02-9 Ammonium chloride ((NH4)Cl)
               SOL  7732-18-5 Water
               CON  0 deg C

          PRO  CF 1021866-92-1
          NTE  crude frome stage 1 2, added in stage 4

RX(26)    RCT  CF 1021866-92-1
          RGT  CH 14104-20-2 Borate(1-), tetrafluoro-, silver(1+) (1:1), CI
               617-86-7 Silane, triethyl-
          PRO  CG 1021866-93-2
          SOL  75-09-2 Methane, dichloro-
          CON  30 minutes, room temperature
REFERENCE COUNT:         30    THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
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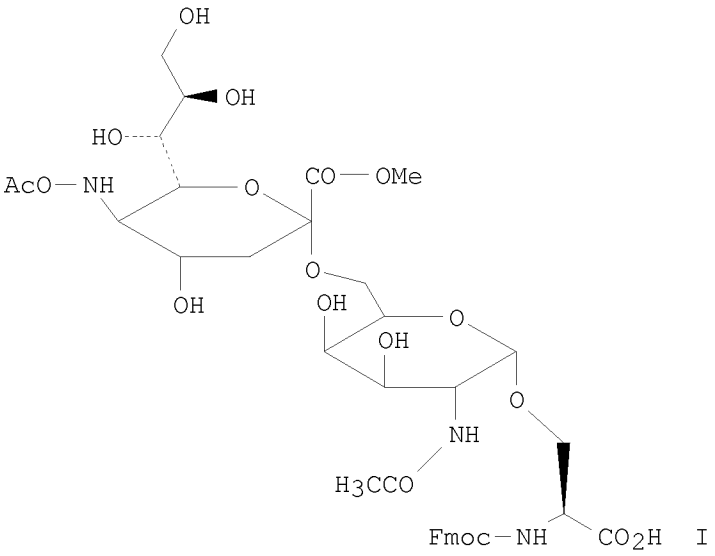
L2 ANSWER 38 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:496325 CASREACT
TITLE: Efficient synthesis of MUC4 sialylglycopeptide through the new sialylation using 5-acetamido-neuraminamide donors
AUTHOR(S): Okamoto, Ryo; Souma, Shingo; Kajihara, Yasuhiro
CORPORATE SOURCE: International Graduate School of Arts and Sciences, Yokohama City University, 22-2 Seto, Kanazawa-ku, Yokohama, 236-0027, Japan
SOURCE: Journal of Organic Chemistry (2008), 73(9), 3460-3466
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

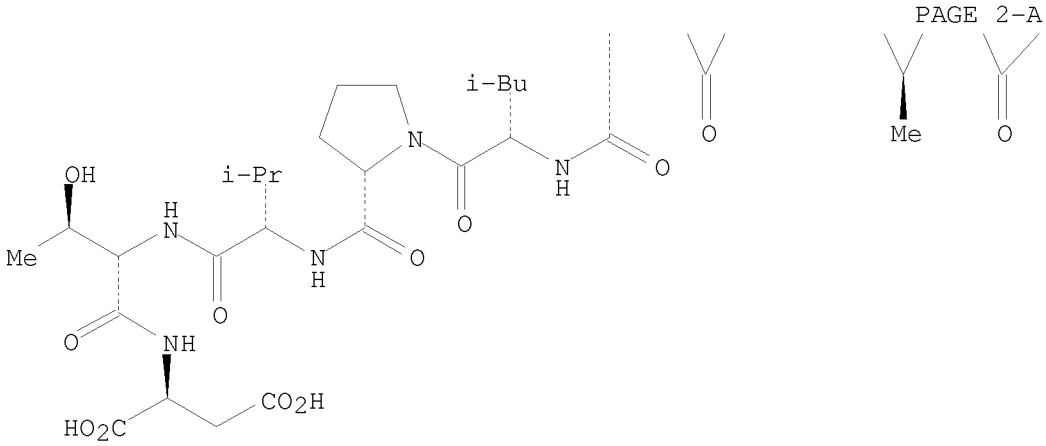
AB Sialylation reactions using a new sialyl donor, di-Et 5-acetamido-4,7,8,9-tetra-O-acetyl-3,5-dideoxy-2-O-β-D-glycero-D-galacto-2-nonulopyranosylonamide phosphite (Neu5Ac-1-amide-2-phosphite) derivs., and the synthesis of the sialyl-TN-MUC4 glycopeptide are described. The sialylation was performed in CH2Cl2 solvent toward the 6-hydroxyl group of several monosugar acceptors and generated α-sialoside in good yield under low temperature and TMSOTf activation system. Amide derivs. of sialoside were easily converted into naturally occurring sialoside after hydrolysis of the amide group. Sialyl-α(2,6)-GalN3 was also prepared by this new sialylation protocol, and then this sialoside was further converted into a Fmoc-protected sialyl-TN serine derivative (I) (Fmoc = 9-fluorenylmethyloxycarbonyl) for solid-phase glycopeptides synthesis. The solid-phase glycopeptide synthesis using this sialyl-TN serine derivative I in which the sugar hydroxyl group was free afforded the target sialyl-TN-MUC4 glycopeptide.

RX(32) OF 135 ...CA ===> CI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

PAGE 2-A



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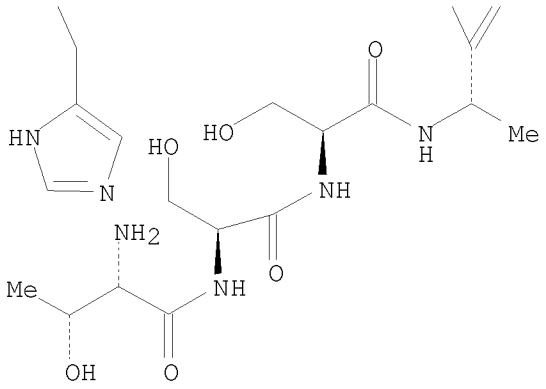

CA

(32)

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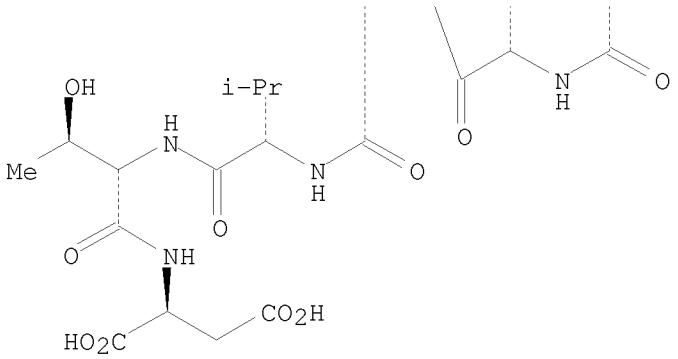
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

PAGE 2-A



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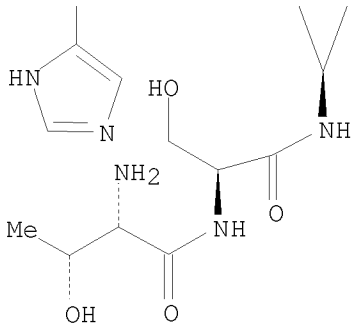


CI
YIELD 50%

RX(32) RCT CA 1021159-80-7

STAGE(1)
RGT AY 1310-73-2 Sodium hydroxide (Na(OH))
SOL 7732-18-5 Water
CON 10 minutes, 0 deg C

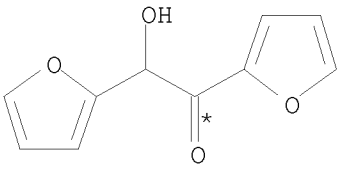
STAGE(2)
RGT CJ 7647-01-0 Hydrochloric acid
SOL 7732-18-5 Water
CON neutralized

PRO CI 1021159-79-4
NTE alternative preparation shown

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

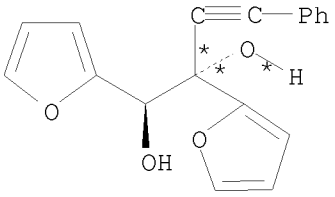
L2 ANSWER 39 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:495242 CASREACT
TITLE: On the highly stereoselective addition of lithio-acetylides to α-hydroxy-ketones
AUTHOR(S): Dunford, Damian; Guyader, Mathilde; Jones, Simon; Knight, David W.; Hursthouse, Michael B.; Coles, Simon J.
CORPORATE SOURCE: School of Chemistry, Main College, Cardiff University, Cardiff, CF10 3AT, UK
SOURCE: Tetrahedron Letters (2008), 49(14), 2240-2242
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Addition of 2 equiv of a lithio-acetylide to an unprotected α-hydroxy ketone is extremely stereoselective in examples where the two ketone substituents are relatively large.

RX(3) OF 12 I + B ===> J



(3)

I B



J
YIELD 89%

RX(3) RCT I 552-86-3, B 4440-01-1

STAGE(1)
SOL 109-99-9 Furan, tetrahydro-
CON - 2 hour, -78 deg C

STAGE(2)
RGT D 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water

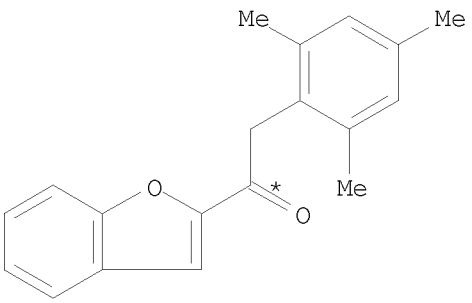
PRO J 1021153-31-0
NTE stereoselective
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 40 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:426651 CASREACT
TITLE: Synthesis and antimicrobial activity of some novel derivatives of benzofuran: Part 2. The synthesis and antimicrobial activity of some novel 1-(1-benzofuran-2-yl)-2-mesitylethanone derivatives
AUTHOR(S): Kirilmis, Cumhur; Ahmedzade, Misir; Servi, Sueleyman; Koca, Murat; Kizirgil, Ahmet; Kazaz, Cavit
CORPORATE SOURCE: Department of Chemistry, Faculty of Science and Arts, Firat University, Elazig, 23169, Turk.
SOURCE: European Journal of Medicinal Chemistry (2008), 43(2), 300-308
CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER: Elsevier Masson SAS
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

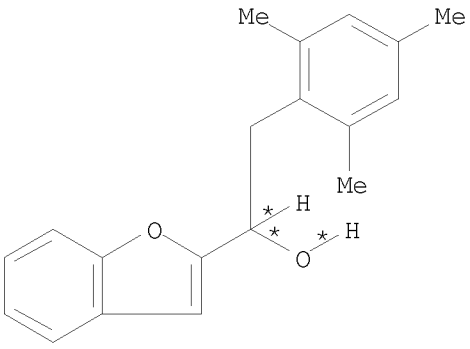
AB The reaction of salicylaldehyde with 1-chloro-3-mesitylacetone and potassium carbonate was used to prepare 1-(1-benzofuran-2-yl)-2-mesitylethanone (I) for the starting reagent purposes. 1-(1-Benzofuran-2-yl)-2-mesitylethanoneoxime (II) was synthesized by the reaction of the compound I with hydroxylamine. New semicarbazone derivative of compound I was obtained in very high yields. Alkyl substituted N-oxime ethers were obtained by the substitution reaction of compound II and various alkyl halides. Acyl substituted N-oxime ethers, e.g., III, were synthesized by the acylation of the compound II with acyl chlorides. Some of the synthesized compds. were tested for antimicrobial activity against Staphylococcus aureus ATCC 6538, Escherichia coli ATCC 25922 and Candida albicans ATCC 10231. Among the synthesized compds., III was found the most active derivative against S. aureus ATCC 6538 and E. coli ATCC 25922. The other compds. exhibited moderate activity against the other test microorganisms.

RX(6) OF 73 ...O ===> U



(6)

O



U
YIELD 90%

RX(6) RCT O 749323-26-0

STAGE(1)
RGT V 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 123-91-1 1,4-Dioxane
CON 24 hours, room temperature

STAGE(2)
RGT G 7732-18-5 Water

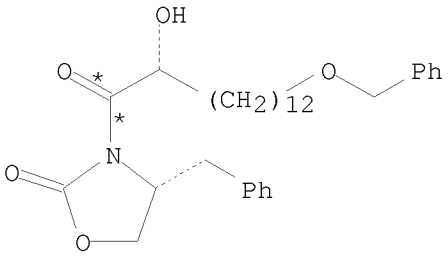
PRO U 1018466-23-3

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

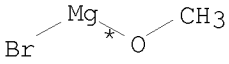
L2 ANSWER 41 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:426620 CASREACT
TITLE: A formal convergent synthesis of (+)-trans-solamin
AUTHOR(S): Raghavan, Sadagopan; Ganapathy Subramanian, S.; Tony, K. A.
CORPORATE SOURCE: Organic Division I, Indian Institute of Chemical Technology, Hyderabad, 500 007, India
SOURCE: Tetrahedron Letters (2008), 49(10), 1601-1604
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A formal convergent synthesis of solamin is disclosed. The synthetic strategy exploits the potential of the sulfinyl group as an auxiliary, nucleophile, and in C-C bond formation. The synthetic route can be adapted to the synthesis of stereoisomers of solamin, analogs with variable carbon side chains, and other members of mono-THF acetogenins.

RX(119) OF 241 COMPOSED OF RX(6), RX(7), RX(8), RX(9), RX(10), RX(11), RX(12), RX(13)

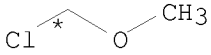
RX(119) S + U + X + AA + J + AN ===> AQ



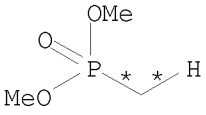
S



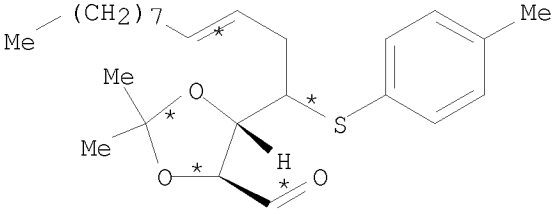
U



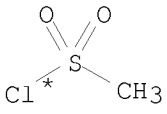
X



AA

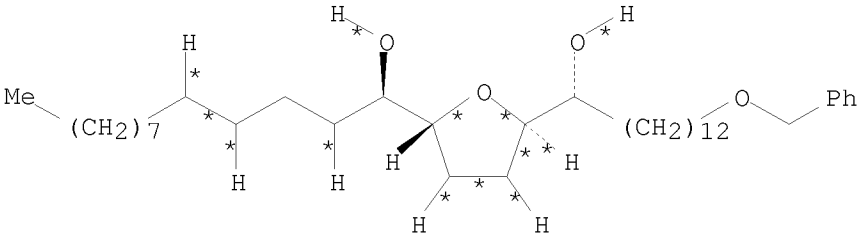


J



AN

8 STEPS



AQ
YIELD 65%

RX(6) RCT S 1018449-69-8, U 58133-64-5
PRO V 1018449-70-1
SOL 67-56-1 Methanol, 75-09-2 Methane, dichloro-
CON 0 deg C

RX(7) RCT V 1018449-70-1, X 107-30-2
RGT Z 7087-68-5 2-Propanamine, N-ethyl-N-(1-methylethyl)-
PRO Y 1018449-71-2
SOL 75-09-2 Methane, dichloro-
CON room temperature

RX(8) RCT Y 1018449-71-2, AA 756-79-6
RGT AC 109-72-8 Lithium, butyl-
PRO AB 1018449-60-9
SOL 109-99-9 Furan, tetrahydro-
CON -78 deg C

RX(9) RCT J 1018449-59-6, AB 1018449-60-9
RGT AF 17194-00-2 Barium hydroxide (Ba(OH)2)
PRO AE 1018449-58-5
SOL 7732-18-5 Water, 109-99-9 Furan, tetrahydro-
CON room temperature
NTE stereoselective

RX(10) RCT AE 1018449-58-5
RGT AI 17611-70-0 Borate(1-), tetrahydro-, zinc (2:1)
PRO AH 1018449-72-3
SOL 109-99-9 Furan, tetrahydro-
CON -40 deg C
NTE stereoselective

RX(11) RCT AH 1018449-72-3
RGT AK 1333-74-0 Hydrogen
PRO AJ 1018449-73-4
CAT 7440-02-0 Nickel
SOL 64-17-5 Ethanol
CON room temperature
NTE Raney nickel used

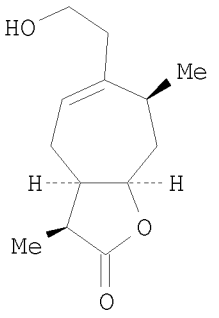
RX(12) RCT AJ 1018449-73-4, AN 124-63-0
RGT M 121-44-8 Ethanamine, N,N-diethyl-
PRO AO 1018449-74-5
CAT 1122-58-3 4-Pyridinamine, N,N-dimethyl-
SOL 75-09-2 Methane, dichloro-
CON 0 deg C

RX(13) RCT AO 1018449-74-5

RGT AR 64-19-7 Acetic acid
PRO AQ 1018449-75-6
SOL 7732-18-5 Water
CON 80 deg C
NTE stereoselective

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

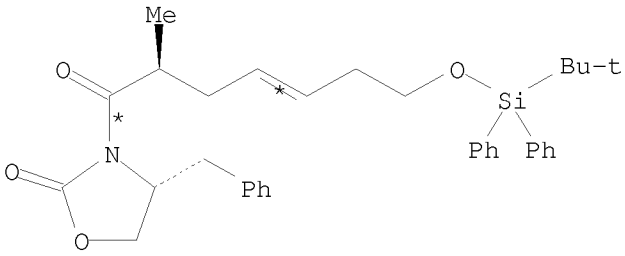
L2 ANSWER 42 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:402997 CASREACT
TITLE: Total Synthesis of (+)- and (-)-Sundiversifolide via Intramolecular Acylation and Determination of the Absolute Configuration
AUTHOR(S): Ohtsuki, Keiko; Matsuo, Kazumasa; Yoshikawa, Takashi; Moriya, Chihiro; Tomita-Yokotani, Kaori; Shishido, Kozo; Shindo, Mitsuru
CORPORATE SOURCE: Institute for Materials Chemistry and Engineering, Kyushu University, 6-1 Kasugako-en, Kasuga, 816-8580, Japan
SOURCE: Organic Letters (2008), 10(6), 1247-1250
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



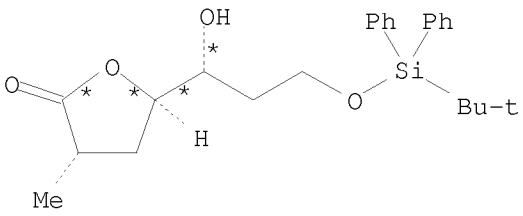
I

AB Intramol. acylation of an organolithium leads to an efficient stereocontrolled total synthesis of both enantiomers of sundiversifolide. The absolute configuration was determined to be I for the (+)-natural product by HPLC anal. and allelopathy assay. The γ-lactone moiety resulted from a butenolide was obtained by the condensation of a bicyclic α-hydroxyhemiacetal with Ph3P:CMe(CO2R).

RX(2) OF 320 ...C ===> F...



C (2) →



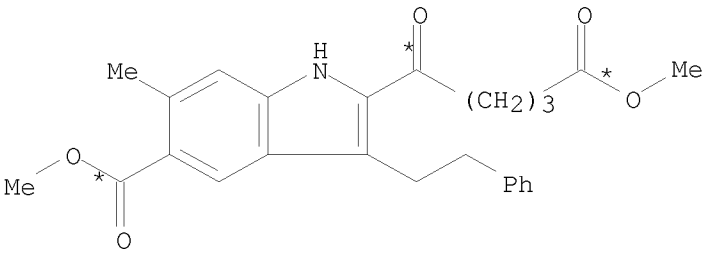
F
YIELD 97%

RX(2) RCT C 1015071-25-6
RGT G 148618-32-0 AD-mix-β, H 3144-09-0 Methanesulfonamide
PRO F 1015071-26-7
SOL 7732-18-5 Water, 75-65-0 2-Propanol, 2-methyl-
CON 10 hours, 0 deg C
NTE stereoselective

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

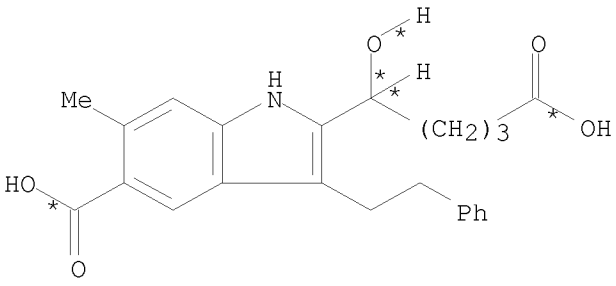
L2 ANSWER 43 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:393710 CASREACT
TITLE: Rational design of the first small-molecule antagonists of NHERF1/EBP50 PDZ domains
AUTHOR(S): Mayasundari, Anand; Ferreira, Antonio M.; He, Liwen; Mahindroo, Neeraj; Bashford, Don; Fujii, Naoaki
CORPORATE SOURCE: Department of Chemical Biology and Therapeutics, St. Jude Children's Research Hospital, Memphis, TN, 38105, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(3), 942-945
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This report describes the first small-mol. antagonists that specifically target the ligand-binding pocket of PDZ domains of NHERF1 multifunctional adaptor protein. Comparison of the peptide sequence homol. between the native ligand of NHERF1 PDZ domains and an indole-based nonpeptide chemical scaffold allowed the design of a small-mol. antagonist of NHERF1 PDZ domains.

RX(6) OF 90 ...S ===> V



S

(6) →



V
YIELD 92%

RX(6) RCT S 1016170-81-2

STAGE(1)
RGT W 1310-73-2 Sodium hydroxide (Na(OH))
SOL 7732-18-5 Water, 123-91-1 1,4-Dioxane
CON 2 hours, 80 deg C

STAGE(2)
RGT X 7647-14-5 Sodium chloride (NaCl)
SOL 7732-18-5 Water

STAGE(3)
RGT Y 7647-01-0 Hydrochloric acid
SOL 7732-18-5 Water
CON pH 4

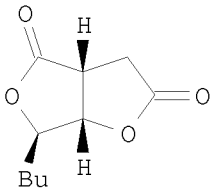
STAGE(4)
RGT Z 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 64-17-5 Ethanol
CON overnight, room temperature

STAGE(5)
RGT Y 7647-01-0 Hydrochloric acid
SOL 7732-18-5 Water

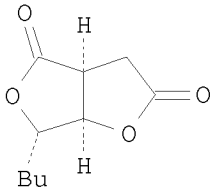
PRO V 873841-48-6

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

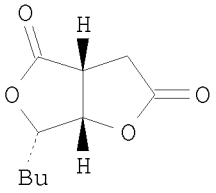
L2 ANSWER 44 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:379362 CASREACT
TITLE: A simple route to enantiopure bis-lactones: synthesis of both enantiomers of epi-nor-canadensolide, nor-canadensolide, and canadensolide
AUTHOR(S): Mondal, Sujit; Ghosh, Subrata
CORPORATE SOURCE: Indian Association for the Cultivation of Science, Department of Organic Chemistry, Jadavpur, Kolkata, West Bengal, 700032, India
SOURCE: Tetrahedron (2008), 64(10), 2359-2368
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



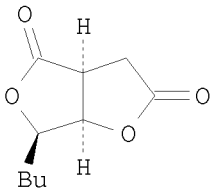
I



II



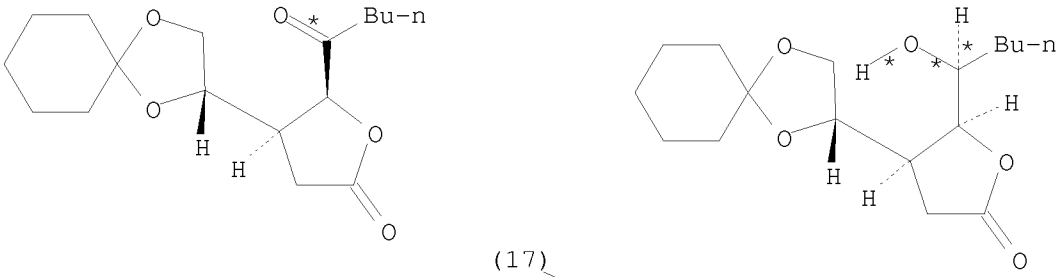
III



IV

AB A simple strategy has been developed for the synthesis of both enantiomers of epi-nor-canadensolide (I, II), nor-canadensolide (III, IV), and an intermediate to canadensolide. An orthoester Claisen rearrangement of an appropriately constructed allyl alc. derivative prepared from R-(+)-2,3-di-O-cyclohexylidine glyceraldehyde followed by epoxidn. of the resulting unsatd. esters produced hydroxy-lactones, which on oxidation gave keto-lactones. Stereoselective reduction of the keto-carbonyl using either a chelation controlled or a non-chelation controlled process led to the natural or the epi-series, resp. The interplay of the electronic effect between the polar groups and the steric effect of the β-substituent during reduction of the keto-lactones turned out to be the key factors in deciding the stereochem. outcome. Regeneration of the aldehyde functionality latent in the ketal moiety of the hydroxy-lactones provided the lactols, which on oxidation gave the bis-lactones.

RX(17) OF 203 ...AX ===> AY...



AX

AY
YIELD 41%

RX(17) RCT AX 1013910-12-7

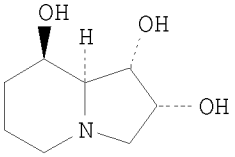
STAGE(1)
RGT AZ 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 67-56-1 Methanol
CON 20 minutes, 0 deg C

STAGE(2)
RGT Z 64-19-7 Acetic acid

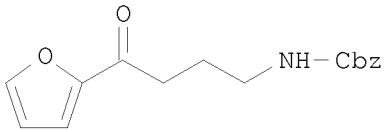
PRO AY 1013910-13-8
NTE stereoselective

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 45 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:355977 CASREACT
TITLE: De Novo Asymmetric Synthesis of 8a-epi-Swainsonine
AUTHOR(S): Abrams, Jason N.; Babu, Ravula Satheesh; Guo, Haibing; Le, Dianna; Le, Jennifer; Osbourn, Joshua M.; O'Doherty, George A.
CORPORATE SOURCE: Department of Chemistry, West Virginia University, Morgantown, WV, 26506, USA
SOURCE: Journal of Organic Chemistry (2008), 73(5), 1935-1940
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



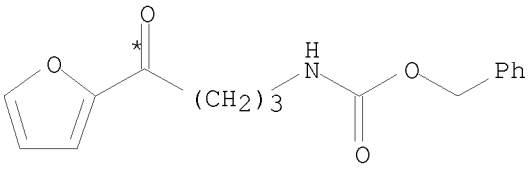
I



II

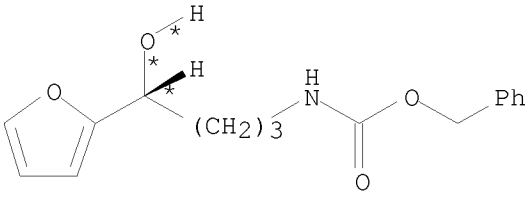
AB An enantioselective and diastereocontrolled approach to 8a-epi-D-swainsonine (I) has been developed from achiral furfural. The key step to this synthesis was a one-pot procedure for the hydrogenolytic removal of two protecting groups and two intramol. reductive amination reactions. The absolute stereochem. was introduced by asym. Noyori reduction of furfuryl ketone II. This route relies on diastereoselective palladium-catalyzed glycosylation to install the anomeric bond, and Luche reduction, diastereoselective dihydroxylation to set up the manno-stereochem. of the indolizidine precursor.

RX(2) OF 222 ...B ===> E...



B

(2)



E
YIELD 91%

RX(2) RCT B 1012036-57-5

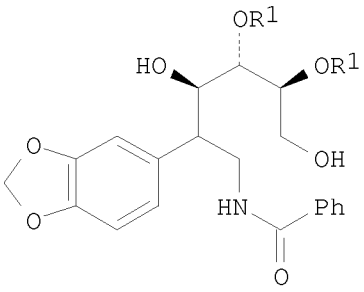
STAGE(1)
RGT F 121-44-8 Ethanamine, N,N-diethyl-, G 64-18-6 Formic acid
CAT 569336-63-6 Ruthenium, [N-[(1R,2R)-2-(amino-κN)-1,2-diphenylethyl]-4-methylbenzenesulfonamidato(2-)-κN][(1,2,3,4,5,6-η)-1,3,5-trimethylbenzene]-
SOL 75-09-2 Methane, dichloro-
CON 24 hours, room temperature

STAGE(2)
SOL 7732-18-5 Water
CON room temperature

PRO E 1012036-80-4
NTE stereoselective

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

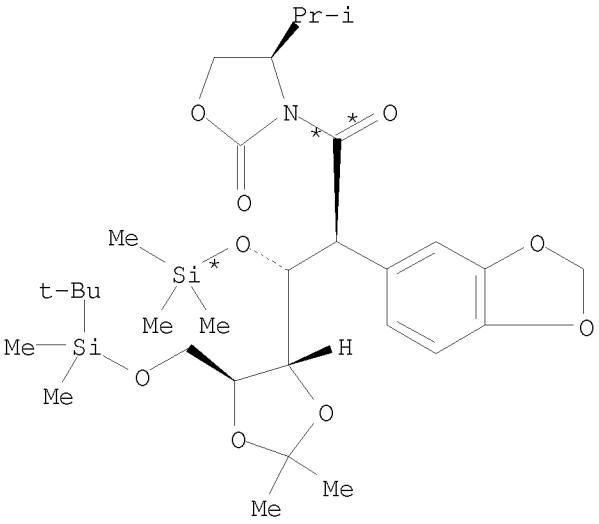
L2 ANSWER 46 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:331867 CASREACT
TITLE: Synthesis and Biological Evaluation of Fully Functionalized seco-Pancratistatin Analogues
AUTHOR(S): McNulty, James; Nair, Jerald J.; Griffin, Carly; Pandey, Siyaram
CORPORATE SOURCE: Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.
SOURCE: Journal of Natural Products (2008), 71(3), 357-363
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society-American Society of Pharmacognosy
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

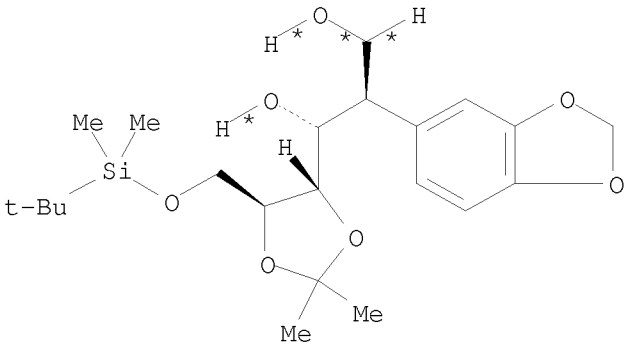
AB The total synthesis of fully functionalized polyhydroxyamide B,C-seco-analogs of the anticancer compound pancratistatin (PST) is reported. Key steps include an Evans' MgCl2-promoted anti-aldol reaction between a functionalized L-threose derivative and (R)-(+)-oxazolidinone to stereoselectively form the C-1/C-10b bond and a regiospecific radical-mediated oxidative fragmentation of a 1,3-benzylidene. The B,C-seco compds. I (R12 = CMe2; R1 = H) exhibited low activity (ED50 > 30 μg/mL) for inducing apoptosis in human cancer cells.

RX(4) OF 54 ...N ===> Q...



N

(4)



Q
YIELD 88%

RX(4) RCT N 1004760-70-6

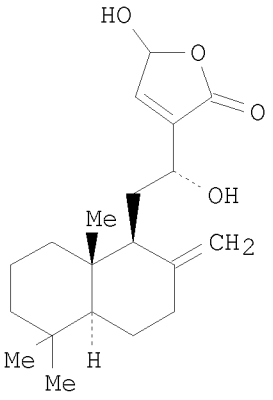
STAGE(1)
RGT R 16949-15-8 Borate(1-), tetrahydro-, lithium (1:1)
SOL 67-56-1 Methanol, 109-99-9 Furan, tetrahydro-
CON SUBSTAGE(1) room temperature -> 0 deg C
SUBSTAGE(2) 0 deg C
SUBSTAGE(3) 3 hours, 0 deg C

STAGE(2)
RGT I 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water

PRO Q 1004760-72-8

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

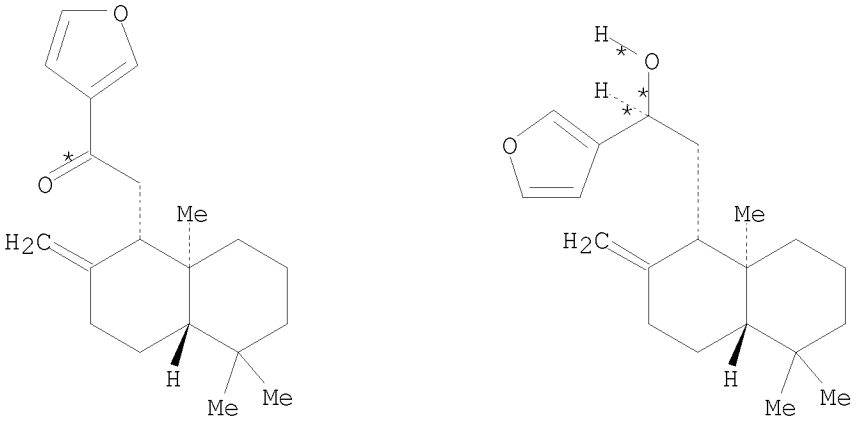
L2 ANSWER 47 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:331854 CASREACT
TITLE: Synthesis of (+)-Zerumin B Using a Regioselective Singlet Oxygen Furan Oxidation
AUTHOR(S): Margaros, Ioannis; Vassilikogiannakis, Georgios
CORPORATE SOURCE: Department of Chemistry, University of Crete, Iraklion, Crete, 71003, Greece
SOURCE: Journal of Organic Chemistry (2008), 73(5), 2021-2023
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



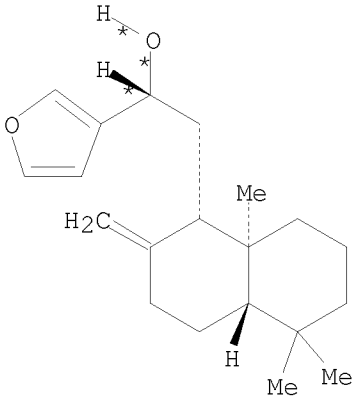
I

AB A short and efficient synthesis of the antitumor diterpenoid (+)-zerumin B (I) has been accomplished starting from (+)-sclareolide. At the heart of the synthetic strategy lies the regioselective formation of the α-substituted γ-hydroxybutenolide moiety of zerumin B. This was achieved by means of a [1,4] O→C triisopropylsilyl migration followed by singlet oxygen (1O2) oxidation of the resulting 2-triisopropylsilyl-3-(α-hydroxy)alkylfuran.

RX(3) OF 48 ...2 E ===> H + I...



2 E H



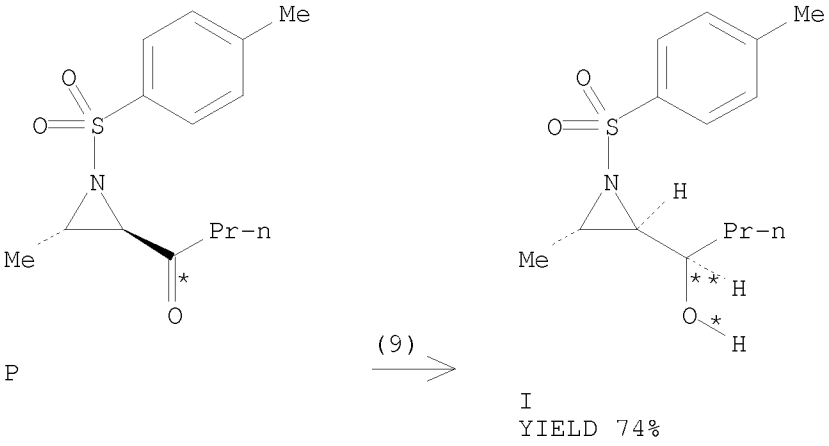
I

RX(3) RCT E 383159-58-8
RGT J 16853-85-3 Aluminate(1-), tetrahydro-, lithium (1:1), (T-4)-
PRO H 216011-55-1, I 61597-55-5
NTE overall yield 97%

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 48 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:331394 CASREACT
TITLE: Synthesis of substituted allylic sulfonamides from β-alkoxy aziridines and organolithium reagents
AUTHOR(S): Moore, Stephen P.; O'Brien, Peter; Whitwood, Adrian C.; Gilday, John
CORPORATE SOURCE: Department of Chemistry, University of York, Heslington, York, YO10 5DD, UK
SOURCE: Synlett (2008), (2), 237-241
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The scope and limitations of the organolithium-mediated conversion of β-methoxy N-tosyl aziridines derived from acyclic allylic alcs. into substituted allylic sulfonamides are described.

RX(9) OF 136 ...P ===> I...



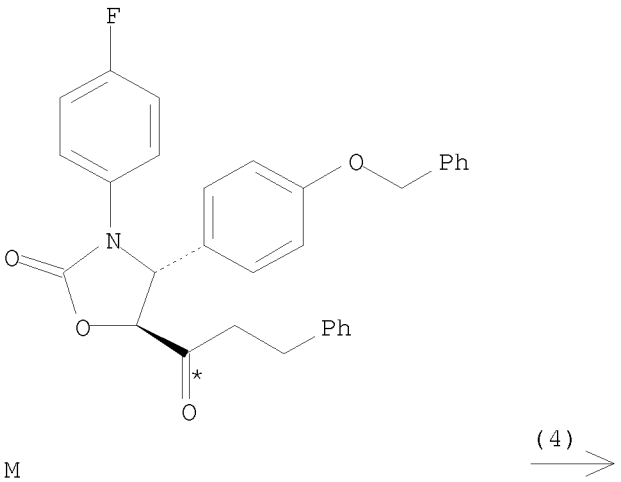
P

I
YIELD 74%

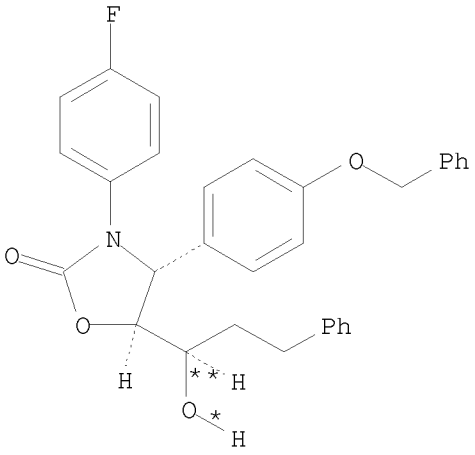
RX(9) RCT P 1010698-04-0
RGT R 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO I 1010698-01-7
SOL 67-56-1 Methanol
CON 3 hours, 0 deg C
NTE stereoselective
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 49 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:321826 CASREACT
TITLE: Substituted oxazolidinones as novel NPC1L1 ligands for the inhibition of cholesterol absorption
AUTHOR(S): Pfefferkorn, Jeffrey A.; Larsen, Scott D.; Van Huis, Chad; Sorenson, Roderick; Barton, Tom; Winters, Thomas; Auerbach, Bruce; Wu, Chenyan; Wolfram, Thaddeus J.; Cai, Hongliang; Welch, Kathleen; Esmaiel, Nadia; Davis, JoAnn; Bousley, Richard; Olsen, Karl; Mueller, Sandra Bak; Mertz, Thomas
CORPORATE SOURCE: Pfizer Global Research & Development, Michigan Laboratories, Ann Arbor, MI, 48105, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(2), 546-553
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cholesterol absorption inhibition (CAI) represents an important treatment option for hypercholesterolemia. Herein, we report the design and evaluation of a series of substituted oxazolidinones as ligands for the Niemann Pick C1 Like 1 (NPC1L1) protein, a key mediator of cholesterol transport. Novel analogs were initially evaluated in a brush border membrane NPC1L1 binding assay; subsequently, promising compds. were evaluated in vivo for acute inhibition of cholesterol absorption. These studies identified analogs with low micromolar NPC1L1 binding affinity and acute in vivo efficacy of >50% absorption inhibition at 3 mg/kg.

RX(4) OF 137 ...M ===> O...



M



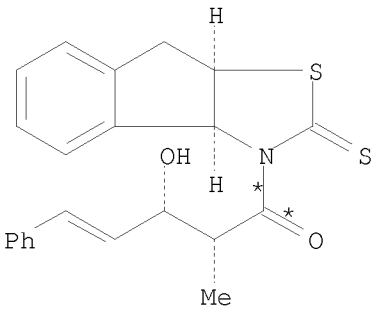
O
YIELD 92%

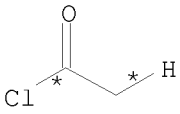
RX(4) RCT M 1011264-92-8
RGT P 865-47-4 2-Propanol, 2-methyl-, potassium salt (1:1), Q 1333-74-0 Hydrogen
PRO O 1011264-93-9
CAT 220114-01-2 Ruthenium, [1,1'-(1S)-[1,1'-binaphthalene]-2,2'-diylbis[1,1-bis(3,5-dimethylphenyl)phosphine-κP]][(2S)-1,1-bis(4-methoxyphenyl)-3-methyl-1,2-butanediamine-κN1,κN2]dichloro-, (OC-6-14)-
SOL 67-63-0 2-Propanol, 109-99-9 Furan, tetrahydro-
CON 6 hours, 25 deg C, 50 psi
NTE Noyori reduction, stereoselective

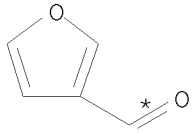
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 50 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:308219 CASREACT
TITLE: Indene-Based Thiazolidinethione Chiral Auxiliary for Propionate and Acetate Aldol Additions
AUTHOR(S): Osorio-Lozada, Antonio; Olivo, Horacio F.
CORPORATE SOURCE: Division of Medicinal and Natural Products Chemistry, The University of Iowa, Iowa City, IA, 52242, USA
SOURCE: Organic Letters (2008), 10(4), 617-620
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An indene-based thiazolidinethione chiral auxiliary was prepared in two steps from (S,S)-trans-1-amino-2-indanol. Chlorotitanium enolates of this chiral auxiliary delivered excellent diastereoselectivities in propionate and acetate aldol addns. The chiral auxiliary was easily removed to deliver several valuable functionalities.

RX(74) OF 132 COMPOSED OF RX(19), RX(2), RX(18)
RX(74) M + F + AW ===> AX

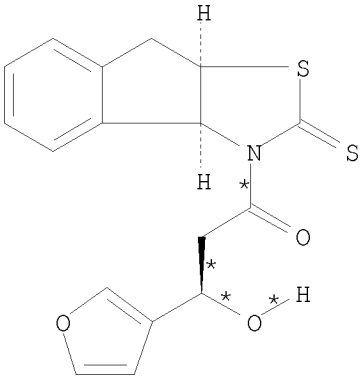






3 STEPS

M F AW



AX
YIELD 93%

RX(19) RCT M 1009061-76-0
RGT AY 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO C 1009061-68-0, Y 95585-63-0

```
          SOL  64-17-5 Ethanol
          CON  SUBSTAGE(1) 2 minutes, 0 deg C
               SUBSTAGE(2) 30 minutes, room temperature

RX(2)     RCT  C 1009061-68-0, F 75-36-5
          RGT  H 121-44-8 Ethanamine, N,N-diethyl-
          PRO  G 1009061-73-7
          SOL  75-09-2 Methane, dichloro-
          CON  overnight, room temperature

RX(18)    RCT  G 1009061-73-7

            STAGE(1)
               RGT  O 7550-45-0 Titanium chloride (TiCl4) (T-4)-
               SOL  75-09-2 Methane, dichloro-
               CON  5 minutes, -78 deg C

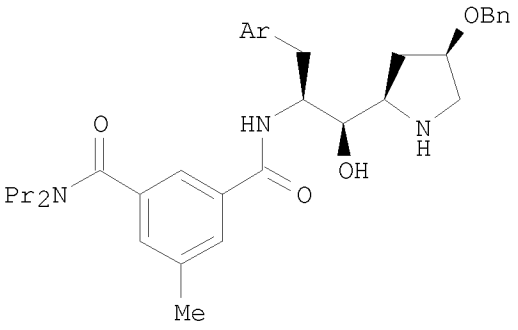
            STAGE(2)
               RGT  R 90-39-1 7,14-Methano-2H,6H-dipyrido[1,2-a:1',2'-
                    e][1,5]diazocine, dodecahydro-, (7S,7aR,14S,14aS)-
               SOL  75-09-2 Methane, dichloro-
               CON  35 minutes, -78 deg C

            STAGE(3)
               RCT  AW 498-60-2
               SOL  75-09-2 Methane, dichloro-
               CON  1 hour, -78 deg C

            STAGE(4)
               RGT  Q 12125-02-9 Ammonium chloride ((NH4)Cl)
               SOL  7732-18-5 Water
               CON  SUBSTAGE(1) -78 deg C
                    SUBSTAGE(2) 5 minutes, room temperature

          PRO  AX 1009062-08-1
          NTE  stereoselective, 98:2 diastereomeric ratio, slow addn. of
               (-)-sparteine for 5 min., slow addn. of aldehyde for 3 min.
REFERENCE COUNT:         38    THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

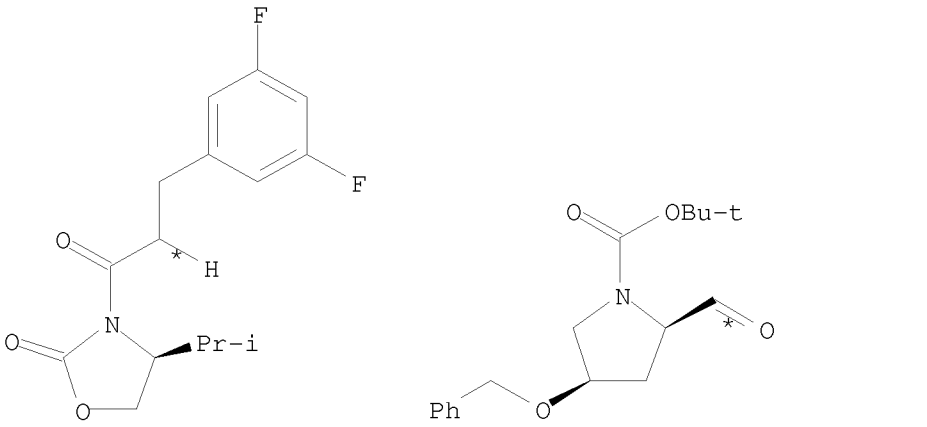
L2 ANSWER 51 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:276118 CASREACT
TITLE: Potent pyrrolidine- and piperidine-based BACE-1 inhibitors
AUTHOR(S): Iserloh, U.; Wu, Y.; Cumming, J. N.; Pan, J.; Wang, L. Y.; Stamford, A. W.; Kennedy, M. E.; Kuvelkar, R.; Chen, X.; Parker, E. M.; Strickland, C.; Voigt, J.
CORPORATE SOURCE: Department of Chemical Research, Schering-Plough Research Institute, Kenilworth, NJ, 07033, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2008), 18(1), 414-417
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



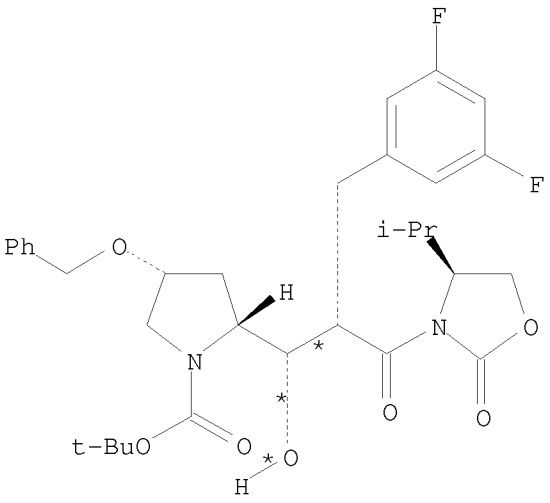
I

AB Based on lead compound 1 identified from the patent literature, the authors developed novel patentable BACE-1 inhibitors by introducing a cyclic amine scaffold. Extensive SAR studies on both pyrrolidines and piperidines ultimately led to inhibitor (I), one of the most potent inhibitors synthesized to date.

RX(2) OF 49 ...C + H ===> I...



C H



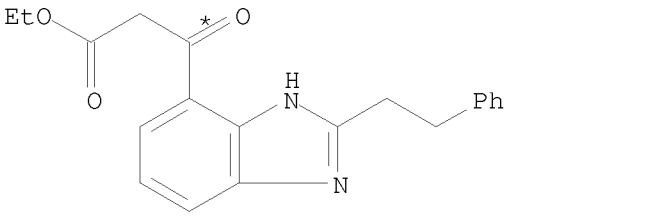
I
YIELD 80%

RX(2) RCT C 845543-39-7, H 250122-39-5
RGT J 121-44-8 Ethanamine, N,N-diethyl-, K 60669-69-4
Methanesulfonic acid, 1,1,1-trifluoro-, anhydride with
B,B-dibutylborinic acid
PRO I 1007851-85-5
NTE stereoselective

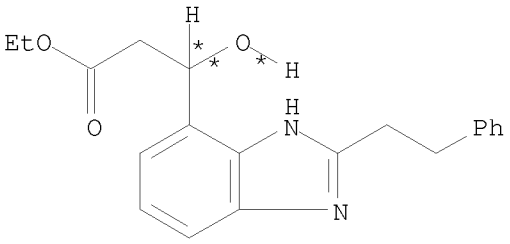
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 52 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:253672 CASREACT
TITLE: Characterization of the Antiallergic Drugs 3-[2-(2-Phenylethyl) benzoimidazole-4-yl]-3-hydroxypropanoic Acid and Ethyl 3-Hydroxy-3-[2-(2-phenylethyl)benzoimidazol-4-yl]propanoate as Full Aryl Hydrocarbon Receptor Agonists
AUTHOR(S): Morales, Jose Luis; Krzeminski, Jacek; Amin, Shantu; Perdew, Gary H.
CORPORATE SOURCE: Graduate Program in Biochemistry, Microbiology and Molecular Biology, Department of Pharmacology, College of Medicine and Center for Molecular Toxicology and Carcinogenesis and the Department of Veterinary and Biomedical Sciences, The Pennsylvania State University, University Park, PA, 16802, USA
SOURCE: Chemical Research in Toxicology (2008), 21(2), 472-482 CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aryl hydrocarbon receptor (AhR) is a ligand-activated transcription factor that mediates most of the toxic effects of numerous chlorinated (e.g., TCDD) and nonchlorinated polycyclic aromatic compds. (e.g., benzo[a]pyrene). Studies in AhR null mice suggested that this receptor may also play a role in the modulation of immune responses. Recently, two drugs, namely, M50354 and M50367 (Et ester derivative of M50354), were described as AhR ligands with high efficacy toward reducing atopic allergic symptoms in an AhR-dependent manner by skewing T helper cell differentiation toward a TH1 phenotype. Surprisingly, these drugs were shown to have minimal activity toward inducing classical dioxin responsive element-driven AhR-mediated CYP1A1 transcription. We synthesized and reevaluated the ability of these drugs to regulate AhR activity. In contrast to previously published data, both M50354 and M50367 were found to be potent inducers of several AhR target genes, namely, CYP1A1, CYP1B1, and UGT1A2. M50367 was a more effective agonist than M50354, perhaps accounting for its higher bioavailability in vivo. However, M50354 was capable of displacing an AhR-specific radioligand more effectively than M50367. This is consistent with M50354 being the active metabolite of M50367. In conclusion, two selective inhibitors of TH2 differentiation are full AhR agonists.

RX(4) OF 20 ...I ===> P...



I (4) →



P
YIELD 86%

RX(4) RCT I 201411-43-0

STAGE(1)
RGT Q 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 7732-18-5 Water, 64-17-5 Ethanol
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 4 hours, room temperature

STAGE(2)
RGT R 64-19-7 Acetic acid
SOL 7732-18-5 Water
CON pH 5 - 5.5

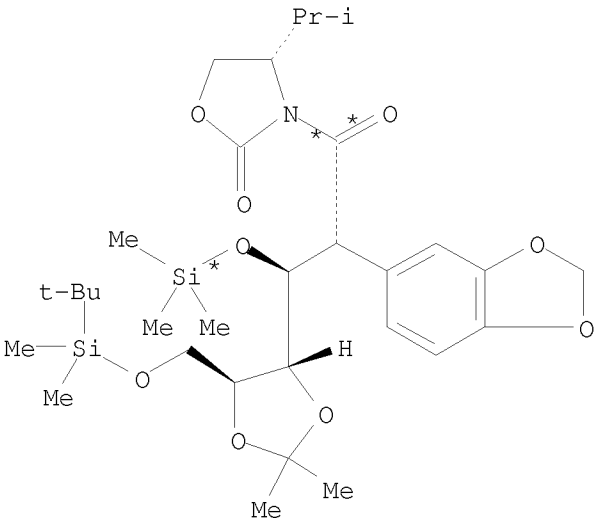
PRO P 201411-46-3
NTE incremental addition of agent and solvent in stage 1

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

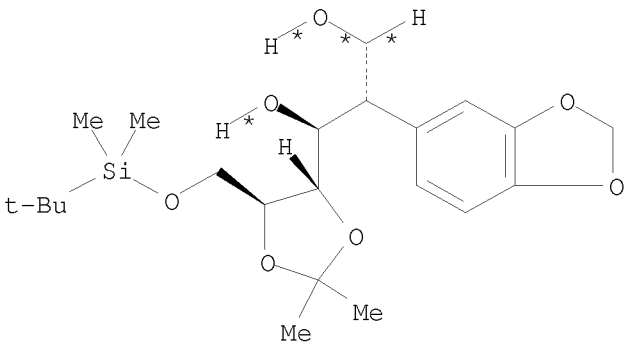
L2 ANSWER 53 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:214984 CASREACT
TITLE: Unusual magnesium chloride catalyzed non-Evans anti-aldol reactions of an enolizable L-threose derivative
AUTHOR(S): McNulty, James; Nair, Jerald J.; Sliwinski, Marcin; Harrington, Laura E.; Pandey, Siyaram
CORPORATE SOURCE: Department of Chemistry, McMaster University, Hamilton, ON, L8S 4M1, Can.
SOURCE: European Journal of Organic Chemistry (2007), (34), 5669-5673
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The magnesium chloride catalyzed anti-aldol reaction of aryl acetate-derived oxazolidinones proceeds readily with enolizable L-threose derivative to provide anti-aldol adducts in high yields and with very high diastereoselectivities. The reaction is also efficient with aromatic aldehydes and provides slightly lower diastereoselectivities. This extension allows access to stereochem. defined fragments applicable to the synthesis of alkaloid and phenylpropanoid derivs.

RX(5) OF 32 ...P ===> S...



P (5) →



S
YIELD 88%

RX(5) RCT P 1004760-67-1
RGT T 16949-15-8 Borate(1-), tetrahydro-, lithium (1:1)
PRO S 1004760-68-2
SOL 67-56-1 Methanol, 109-99-9 Furan, tetrahydro-
CON 3 hours, 0 deg C
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

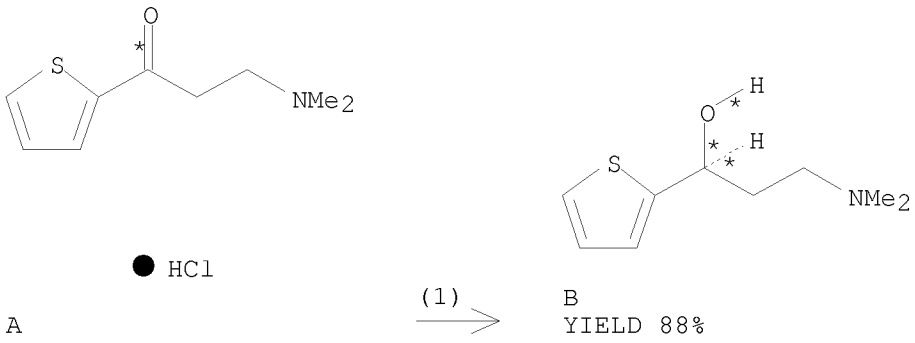
L2 ANSWER 54 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:214939 CASREACT
TITLE: Process for preparation of Duloxetine intermediate
INVENTOR(S): Yan, Ming; He, Shanzhen; Zhang, Xuejing
PATENT ASSIGNEE(S): Sun Yat-Sen University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101104614	A	20080116	CN 2007-10028364	20070530

PRIORITY APPLN. INFO.: CN 2007-10028364 20070530
OTHER SOURCE(S): MARPAT 148:214939

AB This invention provides a process for preparing (S)-3-dimethylamino-1-(2-thienyl)-1-propanol, which is an important intermediate for synthesizing Duloxetine. For example, 3-dimethylamino-1-(2-thienyl)-1-propanone hydrochloride was reacted with sodium formate in methanol in the presence of chiral ruthenium catalyst to give the title compound with 95% e.e. (88%). The process has the advantages of mild reaction condition, simple operation, high yield, and high enantioselectivity.

RX(1) OF 1 A ===> B



A (1) B
YIELD 88%

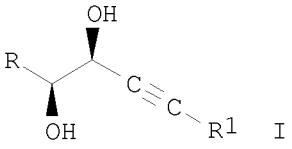
RX(1) RCT A 5424-47-5

STAGE(1)
RGT C 121-44-8 Ethanamine, N,N-diethyl-, D 124-41-4 Methanol, sodium salt (1:1)
CAT 192139-90-5 Ruthenium, [N-[(1S,2S)-2-(amino-κN)-1,2-diphenylethyl]-4-methylbenzenesulfonamidato-κN]chloro[(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene]-
SOL 67-56-1 Methanol
CON 5 days, 45 deg C

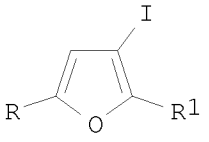
STAGE(2)
RGT E 1310-73-2 Sodium hydroxide (Na(OH))
SOL 7732-18-5 Water
CON pH 12

PRO B 132335-44-5
NTE stereoselective, optimization study, optimized on solvent, catalyst amount

L2 ANSWER 55 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:214887 CASREACT
TITLE: Expedient syntheses of β-iodofurans by 5-endo-dig cyclisations
AUTHOR(S): Bew, Sean P.; El-Taeb, Gamila M. M.; Jones, Simon; Knight, David W.; Tan, Wen-Fei
CORPORATE SOURCE: School of Chemistry, Cardiff University, Cardiff, CF10 3AT, UK
SOURCE: European Journal of Organic Chemistry (2007), (34), 5759-5770
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



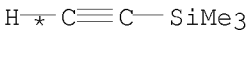
I



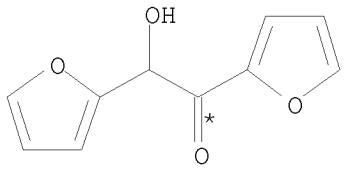
II

AB 3-Alkynyl-1,2-alkanediols such as I (R = Me, Bu, Ph, MeO2C; R1 = Bu, Ph) undergo regioselective 5-endo-dig iodocyclisation reactions to yield iodofurans such as II (R = Me, Bu, Ph, MeO2C; R1 = Bu, Ph). Alkynyldiols are prepared by stereoselective dihydroxylation of enynes (no data) or by addition of alkynyllithium reagents (generated in situ from terminal alkynes) to protected or unprotected α-hydroxy ketones or esters. Using this method, 3-iodo-2,4,5-tri(2-furanyl)furan is prepared; attempted Suzuki coupling with 2-furanboronic acid yields only 2,3,5-tri(2-furanyl)furan rather than the desired 2,3,4,5-tetrakis(2-furanyl)furan.

RX(19) OF 62 AP + AZ ===> BA...

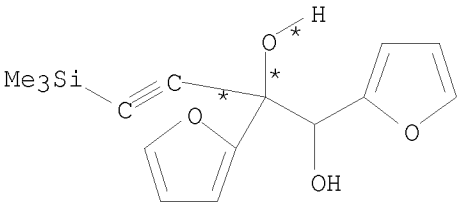


AP



AZ

(19)



BA
YIELD 78%

RX(19) RCT AP 1066-54-2

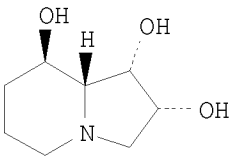
STAGE(1)
RGT AB 109-72-8 Lithium, butyl-
SOL 109-99-9 Furan, tetrahydro-
CON 1 hour, -78 deg C

STAGE(2)
RCT AZ 552-86-3
CON 1 hour, -78 deg C -> room temperature

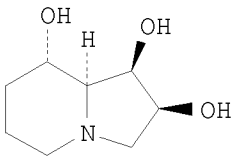
PRO BA 1004852-52-1
NTE stereoselective (subsequent product isolated as a single diastereomer)

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

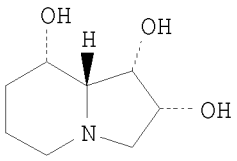
L2 ANSWER 56 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:192100 CASREACT
TITLE: De novo asymmetric syntheses of D-, L- and 8-epi-D-swainsonine
AUTHOR(S): Guo, Haibing; O'Doherty, George A.
CORPORATE SOURCE: Department of Chemistry, West Virginia University, Morgantown, WV, 26506, USA
SOURCE: Tetrahedron (2008), 64(2), 304-313
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



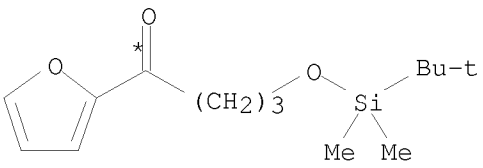
II



III

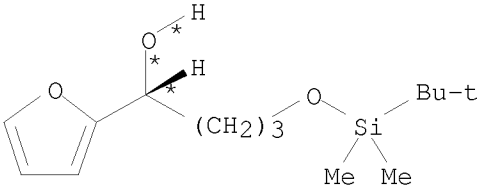
AB A highly enantioselective and stereocontrolled approach to D-, L- and 8-epi-D-swainsonine, I, II and III, resp., was developed starting from achiral furan and γ-butyrolactone. A one-pot hydrogenolysis of both azide and benzyl ether followed by an intramol. reductive amination was employed as key step to establish the indolizidine ring system. The absolute stereochem. was installed by the Noyori reduction and the relative stereochem. by the use of several highly diastereoselective palladium-catalyzed glycosylation, Luche reduction, dihydroxylation, and palladium-catalyzed azide allylation reactions. This practical approach provide multigram quantities of indolizidine natural product D-swainsonine in 13 steps and 25% overall yield.

RX(3) OF 337 ...F ===> I...



F

(3)

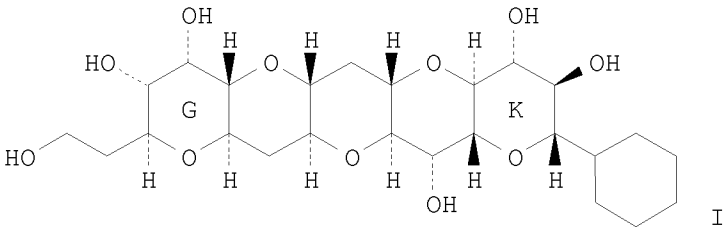


I
YIELD 95%

RX(3) RCT F 691870-87-8
RGT J 141-53-7 Formic acid, sodium salt (1:1), K 57-09-0 1-Hexadecanaminium, N,N,N-trimethyl-, bromide (1:1)
PRO I 886852-69-3
CAT 569336-63-6 Ruthenium, [N-[(1R,2R)-2-(amino-κN)-1,2-diphenylethyl]-4-methylbenzenesulfonamidato(2-)-κN][(1,2,3,4,5,6-η)-1,3,5-trimethylbenzene]-
SOL 7732-18-5 Water
NTE stereoselective

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

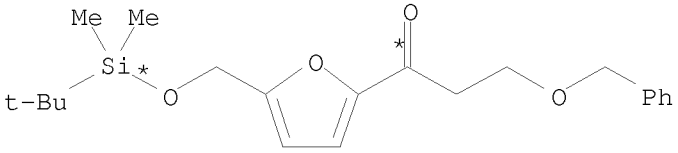
L2 ANSWER 57 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:191768 CASREACT
TITLE: Chemical synthesis of the GHIJK ring system and further experimental support for the originally assigned structure of maitotoxin
AUTHOR(S): Nicolaou, K. C.; Cole, Kevin P.; Frederick, Michael O.; Aversa, Robert J.; Denton, Ross M.
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Angewandte Chemie, International Edition (2007), 46(46), 8875-8879
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



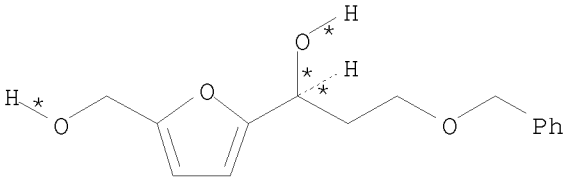
I

AB The originally proposed structure of maitotoxin has recently come under scrutiny based on biosynthetic and computational considerations. A newly synthesized maitotoxin subunit I, which contains the ring framework corresponding to the GHIJK ring domain of the mol., provided through 13C NMR spectroscopic comparisons strong exptl. support for the originally proposed structure of maitotoxin.

RX(3) OF 594 ...I ===> N...



I (3) →



N
YIELD 94%

RX(3) RCT I 1004112-08-6

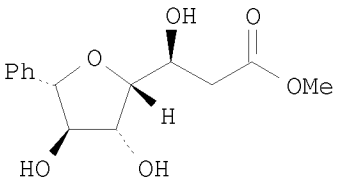
STAGE(1)
RGT O 121-44-8 Ethanamine, N,N-diethyl-
CAT 188444-42-0 Ruthenium, [N-[(1S,2S)-2-(amino-κN)-1,2-diphenylethyl]-4-methylbenzenesulfonamidato(2-)-κN][(1,2,3,4,5,6-η)-1-methyl-4-(1-methylethyl)benzene]-
SOL 64-18-6 Formic acid
CON 72 hours, 25 deg C

STAGE(2)
RGT K 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water, 141-78-6 Acetic acid ethyl ester
CON 25 deg C

PRO N 1004112-34-8
NTE stereoselective

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

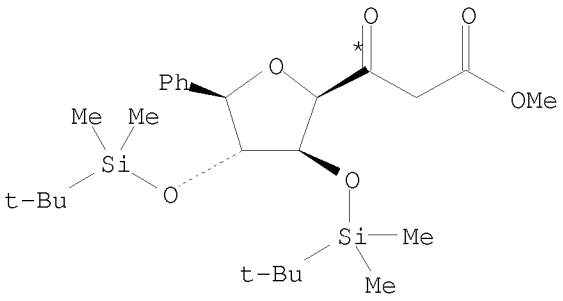
L2 ANSWER 58 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:191767 CASREACT
TITLE: First total synthesis and absolute configuration of the styryl lactone gonioheptolide A
AUTHOR(S): Gupta, Shuchi; Rajagopalan, Murali; Alhamadsheh, Mamoun M.; Tillekeratne, L. M. Viranga; Hudson, Richard A.
CORPORATE SOURCE: Department of Medicinal and Biological Chemistry, College of Pharmacy, University of Toledo, Toledo, OH, 43606, USA
SOURCE: Synthesis (2007), (22), 3512-3518
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



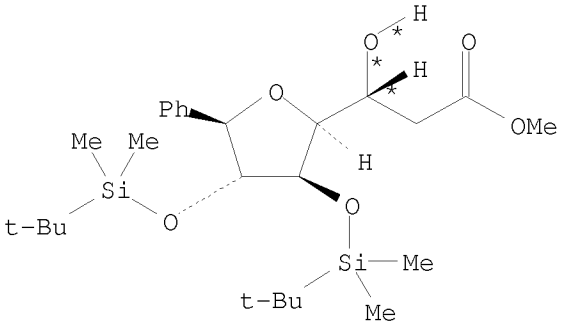
I

AB Efficient asym. syntheses of both naturally occurring and non-naturally occurring enantiomers of gonioheptolide A are reported. The absolute configuration of (+)-gonioheptolide A (I) was established by NOESY, Mosher ester anal., and comparison with the sp. rotation of the isolated (+)-gonioheptolide A.

RX(15) OF 148 ...BA ===> BB...



BA (15) ⟶



BB
YIELD 83%

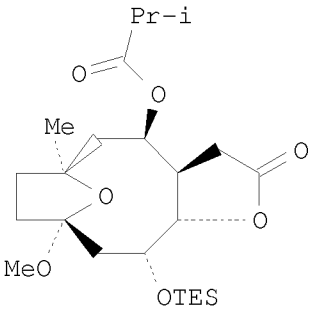
RX(15) RCT BA 1002753-41-4

STAGE(1)
RGT BC 112022-81-8 1H,3H-Pyrrolo[1,2-c][1,3,2]oxazaborole, tetrahydro-1-methyl-3,3-diphenyl-, (3aS)-, BD 14044-65-6 Boron, trihydro(tetrahydrofuran)-, (T-4)-
SOL 109-99-9 Furan, tetrahydro-, 108-88-3 Benzene, methyl-
CON 2 hours, room temperature

STAGE(2)
RGT N 7732-18-5 Water

PRO BB 1002753-37-8
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

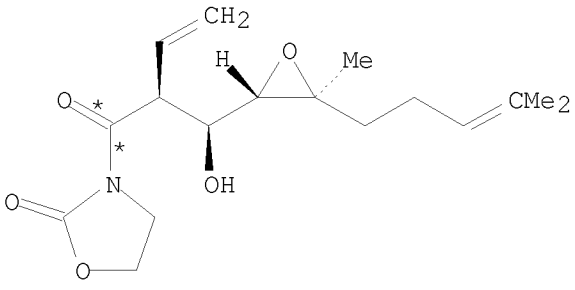
L2 ANSWER 59 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:144900 CASREACT
TITLE: Synthetic Study of Diversifolin: The Construction of 11-Oxabicyclo[6.2.1]undec-3-ene Core Using Ring-Closing Metathesis
AUTHOR(S): Nakamura, Tomoaki; Oshida, Motoko; Nomura, Tomoko; Nakazaki, Atsuo; Kobayashi, Susumu
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Tokyo University of Science (RIKADAI), Noda-shi, Chiba, 278-8510, Japan
SOURCE: Organic Letters (2007), 9(26), 5533-5536
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



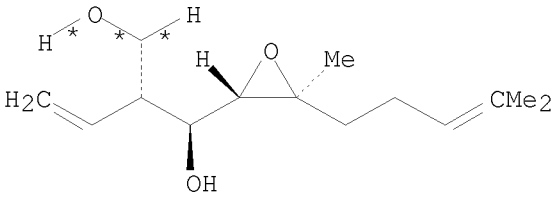
I

AB Stereoselective synthesis of a potential intermediate I bearing 11-oxabicyclo[6.2.1]undec-3-ene core, a common scaffold of biol. active germacrane-type sesquiterpenes, has been achieved. Synthetic features involve formal 1,3-asym. induction, unusual ring-closing metathesis constructing a 10-membered carbocycle system, and unique lactone transposition.

RX(4) OF 608 ...N ===> T...



N (4) →



T
YIELD 71%

RX(4) RCT N 1001435-38-6
RGT U 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO T 1001435-40-0
SOL 7732-18-5 Water, 109-99-9 Furan, tetrahydro-
CON 1 hour, 0 deg C
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 60 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:144638 CASREACT
TITLE: Process for the preparation of duloxetine and its salts
INVENTOR(S): Biswas, Sujoy; Karanjai, Keya; Khanduri, Chandra Has
PATENT ASSIGNEE(S): Ranbaxy Laboratories Limited, India
SOURCE: PCT Int. Appl., 14pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008004191	A2	20080110	WO 2007-IB52604	20070703
WO 2008004191	A3	20080306		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

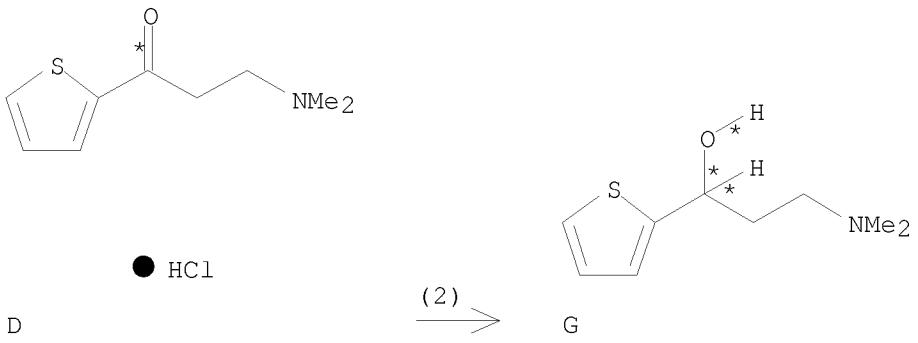
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

IN 2006DE01553	A	20080118	IN 2006-DE1553	20060703

PRIORITY APPLN. INFO.: IN 2006-DE1553 20060703

AB Claimed is a pharmaceutically acceptable salt of duloxetine having enantiomeric purity of 98% or more. Also claimed is a process for preparing duloxetine having enantiomeric purity of 98% or more by reacting (1S)-3-(dimethylamino)-1-(2-thienyl)propan-1-ol (I) with 1-fluoronaphthalene (II), followed by dealkylation of the product and isolation of duloxetine or its salt. Thus, reaction of I with II in DMSO, followed by reaction of the product with Ph chloroformate in chloroform containing diisopropylethylamine and treatment of the demethylated product with KOH in refluxing toluene, gave, after workup, duloxetine as an oily mass which was then treated with maleic acid to give duloxetine maleate (enantiomeric purity : 99.98%).

RX(2) OF 35 ...D ===> G...



D G

RX(2) RCT D 5424-47-5

```
  STAGE(1)
     RGT  H 1310-73-2 Sodium hydroxide (Na(OH)), I 16940-66-2
          Borate(1-), tetrahydro-, sodium (1:1)
     SOL  7732-18-5 Water, 67-56-1 Methanol
     CON  SUBSTAGE(1) 25 deg C, pH 11
          SUBSTAGE(2) 25 deg C -> 15 deg C
          SUBSTAGE(3) 30 minutes
          SUBSTAGE(4) 2 hours, 25 deg C

  STAGE(2)
     RGT  J 67-64-1 2-Propanone
     CON  25 deg C

PRO  G 13636-02-7
```

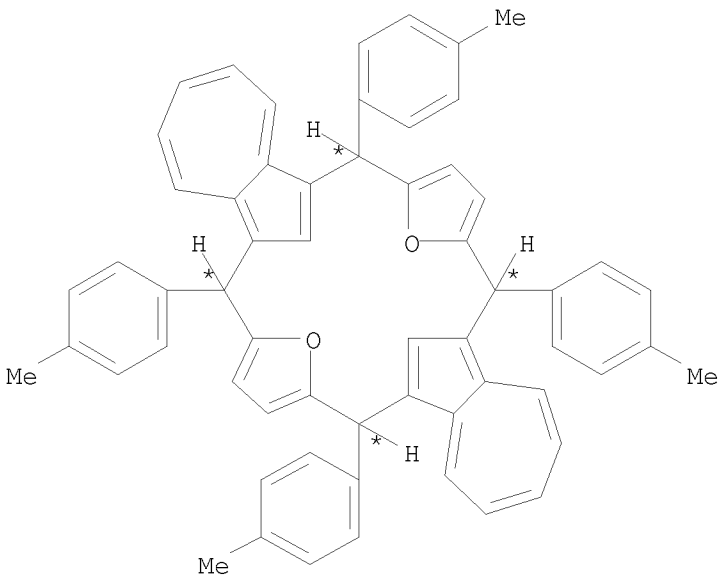
L2 ANSWER 61 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:144547 CASREACT
TITLE: Dioxadiazuliporphyrin: A Near-IR Redox Switchable Chromophore
AUTHOR(S): Sprutta, Natasza; Siczek, Marta; Latos-Grazynski, Lechoslaw; Pawlicki, Milosz; Szterenberg, Ludmila; Lis, Tadeusz
CORPORATE SOURCE: Department of Chemistry, University of Wroclaw, Wroclaw, 50 383, Pol.
SOURCE: Journal of Organic Chemistry (2007), 72(25), 9501-9509
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The synthesis of dioxadiazuliporphyrinogen I and its oxidized forms: dioxadiazuliporphyrin II and dication II2+, is reported. These compds. were characterized in solution using UV-vis and 1H and 13C NMR spectroscopic means and in the solid state via single-crystal X-ray diffraction anal. Dioxadiazuliporphyrin is a nonarom. porphyrinoid, readily and reversibly oxidizable to its cation radical and to the aromatic carbaporphyrinoid dication, which can be viewed as a 21,23-dicarba-22,24-dioxaporphyrin with two fused tropylium rings. Further insight into the geometric and magnetic manifestations of aromaticity and antiaromaticity in the case of the redox couple II, II2+ is obtained using d. functional calcns. and nucleus-independent chemical shifts.

VERIFICATION INCOMPLETE

RX(2) OF 8 ...C ===> F



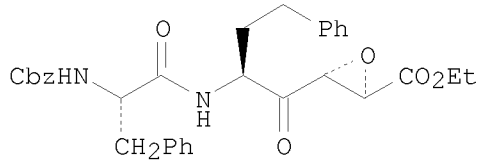
(2)

C

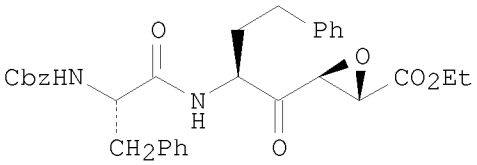
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RX(2) RCT C 1001085-35-3
RGT G 84-58-2 1,4-Cyclohexadiene-1,2-dicarbonitrile,
4,5-dichloro-3,6-dioxo-
PRO F 1001415-63-9
SOL 75-09-2 Methane, dichloro-
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 62 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:121948 CASREACT
TITLE: Dipeptidyl-α,β-epoxyesters as potent irreversible inhibitors of the cysteine proteases cruzain and rhodesain
AUTHOR(S): Gonzalez, Florenci V.; Izquierdo, Javier; Rodriguez, Santiago; McKerrow, James H.; Hansell, Elizabeth
CORPORATE SOURCE: Departament de Quimica Inorganica i Organica, Universitat Jaume I, Castello, 12071, Spain
SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(24), 6697-6700
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



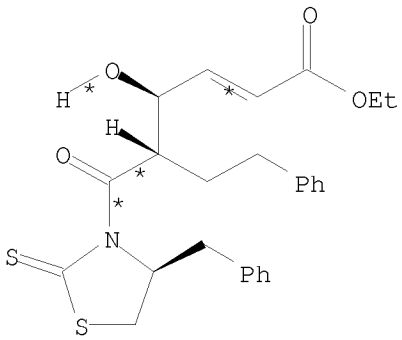
I



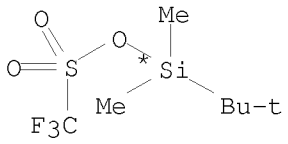
II

AB The dipeptidyl epoxyesters I and II were synthesized and were found to be potent, irreversible inhibitors of cruzain and rhodesain.

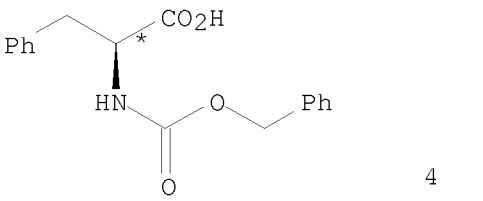
RX(35) OF 57 COMPOSED OF RX(2), RX(3), RX(4), RX(5)
RX(35) C + J + S ===> V



C

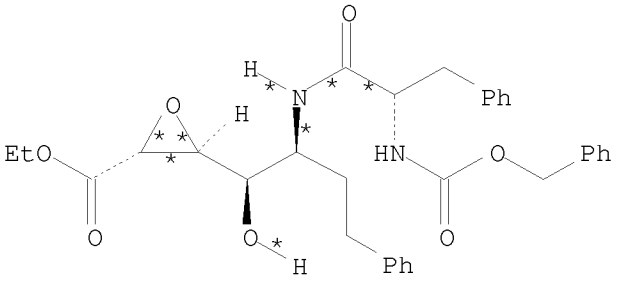


J



S

4 STEPS



V

RX(2) RCT C 1000981-17-8, J 69739-34-0

STAGE(1)
RGT L 108-48-5 Pyridine, 2,6-dimethyl-

STAGE(2)
RGT M 1310-65-2 Lithium hydroxide (Li(OH)), N 7722-84-1 Hydrogen peroxide (H2O2)
SOL 7732-18-5 Water

PRO K 1000981-19-0

RX(3) RCT K 1000981-19-0
RGT P 121-44-8 Ethanamine, N,N-diethyl-, Q 26386-88-9 Phosphorazidic acid, diphenyl ester
PRO O 1000981-20-3
SOL 108-88-3 Benzene, methyl-
NTE Curtius rearrangement

RX(4) RCT O 1000981-20-3, S 1161-13-3
RGT U 1122-58-3 4-Pyridinamine, N,N-dimethyl-
PRO T 1000981-21-4

RX(5) RCT T 1000981-21-4

STAGE(1)
RGT W 429-41-4 1-Butanaminium, N,N,N-tributyl-, fluoride (1:1)

STAGE(2)
RGT X 14680-31-0 Hydroperoxide, 1,1-dimethylethyl, lithium salt (1:1)

PRO V 1000981-22-5

NTE stereoselective

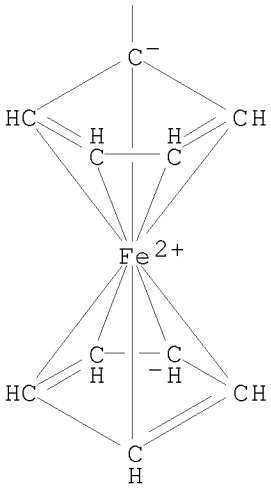
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 63 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:121523 CASREACT
TITLE: Synthesis of novel chiral salen-type ferrocenyl ligands
AUTHOR(S): Ballistreri, Francesco P.; Patti, Angela; Pedotti, Sonia; Tomaselli, Gaetano A.; Toscano, Rosa M.
CORPORATE SOURCE: Dipartimento di Scienze Chimiche, Universita di Catania, Catania, I-95125, Italy
SOURCE: Tetrahedron: Asymmetry (2007), 18(20), 2377-2380
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two novel chiral C2-sym. ferrocenyl salen-type ligands were prepared via reaction of suitable ferrocenyldiamines with 3,5-bis(tert-butyl)salicylaldehyde and tested in the asym. epoxidn. of unfunctionalized alkenes. Although the asym. induction was quite low, an unusually high trans/cis-epoxide ratio and high reactivity of a trans-alkene substrate were observed

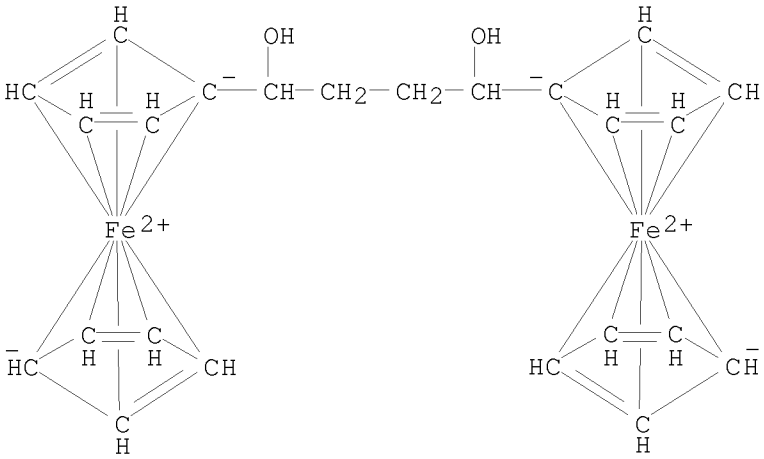
RX(1) OF 22 A ===> B...

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



A

(1)

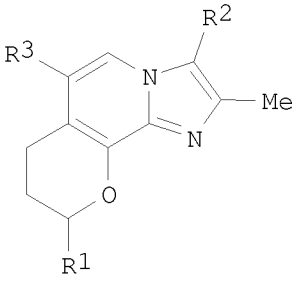


B

RX(1) RCT A 39385-23-4
RGT C 13292-87-0 Boron, trihydro[thiobis[methane]]-, (T-4)-
PRO B 1000804-58-9
CAT 112022-83-0 1H,3H-Pyrrolo[1,2-c][1,3,2]oxazaborole, tetrahydro-1-methyl-3,3-diphenyl-, (3aR)-
CON room temperature
NTE stereoselective

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

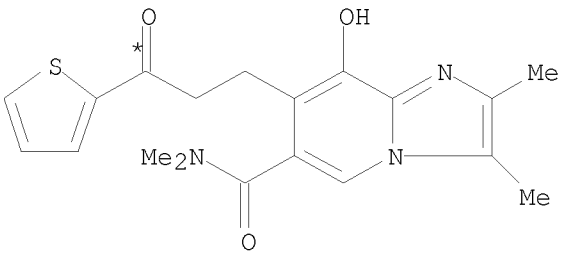
L2 ANSWER 64 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:100538 CASREACT
TITLE: Synthesis and Evaluation of 7H-8,9-Dihydropyrano[2,3-c]imidazo[1,2-a]pyridines as Potassium-Competitive Acid Blockers
AUTHOR(S): Palmer, Andreas M.; Grobbel, Burkhard; Jecke, Cornelia; Brehm, Christof; Zimmermann, Peter J.; Buhr, Wilm; Feth, Martin P.; Simon, Wolfgang-Alexander; Kromer, Wolfgang
CORPORATE SOURCE: Departments of Medicinal Chemistry, Analytical Chemistry, Biochemistry, and Pharmacology, NYCOMED GmbH, Konstanz, D-78467, Germany
SOURCE: Journal of Medicinal Chemistry (2007), 50(24), 6240-6264
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

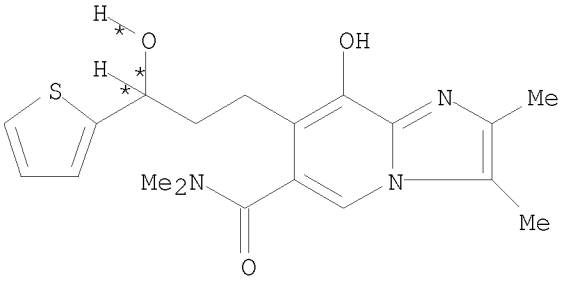
AB 7H-8,9-Dihydropyrano[2,3-c]imidazo[1,2-a]pyridines I (R1 = Ph, 2-MeC6H4, 2-FC6H4, 4-FC6H4, 2-thienyl; R2 = Me, HOCH2, Me2NCO, Et, Me2NCH2, MeCO, Br, MeC.tplbond.CCO, etc.; R3 = Me2NCO, H2NCO, MeSO2NHCO, HO2C, etc.) with excellent physicochem. and pharmacol. properties were identified that represent interesting candidates for further development as potassium-competitive acid blockers (P-CABs). The title compds. were prepared following synthetic pathways that relied either on a Claisen rearrangement/cross-metathesis reaction or on the (asym.) reduction of prochiral ketones. The influence of the character of the substituents on the biol. activity and the physicochem. properties of the target compds. was examined In contrast to the parent system (R3 = H), compds. in which R3 represents a carboxamide residue generally show improved in vivo activity and favorable pKa/log D values. Whereas variation of R2 is useful to obtain target compds. with modified basicity and lipophilicity, strong inhibition of the H+/K+-ATPase and potent in vivo activity is observed for R2 = Me only. Small modifications of the R1 aryl group, e.g., replacement of hydrogen vs. a fluoro atom or a Me group, are allowed. The (9S)-enantiomers are responsible for the gastric acid secretion inhibiting action, whereas the (9R)-enantiomers are virtually inactive.

RX(74) OF 998 ...EF ===> EN...



(74)

EF



EN

RX(74) RCT EF 856698-51-6
RGT BG 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO EN 856698-43-6
SOL 64-17-5 Ethanol
CON 2 hours, room temperature

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 65 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:55069 CASREACT
TITLE: Process for the production of intermediates for the preparation of tricyclic imidazopyridines and their use in the treatment of gastrointestinal disorders
INVENTOR(S): Palmer, Andreas; Buhr, Wilm; Zimmermann, Peter Jan; Brehm, Christof; Chiesa, Maria Vittoria; Zanotti-Gerosa, Antonio
PATENT ASSIGNEE(S): Nycomed GmbH, Germany
SOURCE: PCT Int. Appl., 81pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007141253	A1	20071213	WO 2007-EP55496	20070605

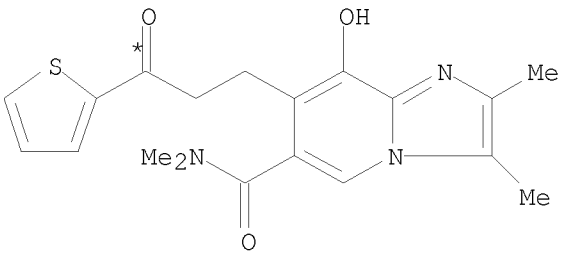
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: EP 2006-115085 20060607
OTHER SOURCE(S): MARPAT 148:55069
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

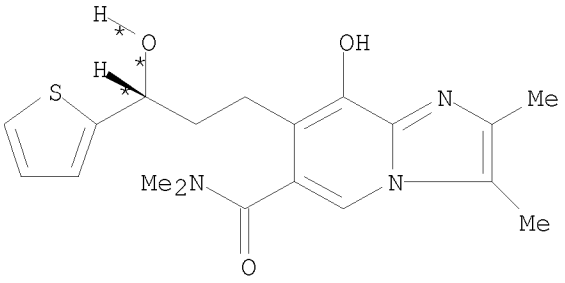
AB The invention relates to a process for the synthesis of compds. of the formula I and II. The compds. of the formula I and II are valuable intermediates for the preparation of pharmaceutically active compds. A process for preparing compds. of formula I and II was R1 and R2 are independently H, C1-4 alkyl, C3-7 cycloalkyl, C3-7 cycloalkyl-C1-4 alkyl, etc.; R3 is H, amino, C1-4 (fluoro)alkyl, C2-4 alkyl, C2-4 alkynyl, etc.; Arom is (un)substituted (mono/bi)cyclic aromatic ring; is claimed. Compds. of formula I and II were prepared by asym. catalytic hydrogenation of the corresponding ketone using a chiral ruthenium catalyst. Example compound III was prepared by ruthenium-catalyzed asym. catalytic hydrogenation of 3-[6-(3,3-difluoroazetidin-1-ylcarbonyl)-8-hydroxy-2,3-dimethylimidazo[1,2-a]pyridin-7-yl]-1-(2-methylphenyl)propan-1-one; the resulting chiral (R)-alc. underwent cyclization to give compound II. These compds. may be useful in the treatment of gastrointestinal disorders.

RX(9) OF 283 ...AC ===> AD...



AC

(9)



AD
YIELD 63%

RX(9) RCT AC 856698-51-6

STAGE(1)
RGT H 865-47-4 2-Propanol, 2-methyl-, potassium salt (1:1)
SOL 75-65-0 2-Propanol, 2-methyl-, 67-63-0 2-Propanol, 7732-18-5 Water
CON SUBSTAGE(1) room temperature -> 40 deg C
SUBSTAGE(2) 10 minutes, 40 deg C

STAGE(2)
CAT 918129-65-4 Ruthenium, [(3S)-4,4'-bis[bis(3,5-dimethylphenyl)phosphino-κP]-2,2',6,6'-tetramethoxy[3,3'-bipyridine]][(2S)-1,1-bis(4-methoxyphenyl)-3-methyl-1,2-butanediamine-κN1,κN2]dichloro-, (OC-6-14)-
CON SUBSTAGE(1) 40 deg C
SUBSTAGE(2) 5 minutes, 40 deg C

STAGE(3)
RGT I 1333-74-0 Hydrogen
CON SUBSTAGE(1) 23 hours, 65 deg C, 80 bar
SUBSTAGE(2) 65 deg C -> room temperature

STAGE(4)
RGT J 12125-02-9 Ammonium chloride ((NH4)Cl)
SOL 7732-18-5 Water, 75-09-2 Methane, dichloro-

STAGE(5)
RGT K 7647-01-0 Hydrochloric acid
SOL 7732-18-5 Water

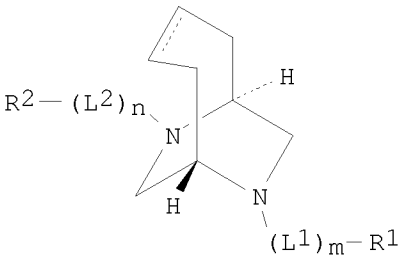
CON pH 7

PRO AD 960003-34-3
NTE high pressure, stereoselective
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

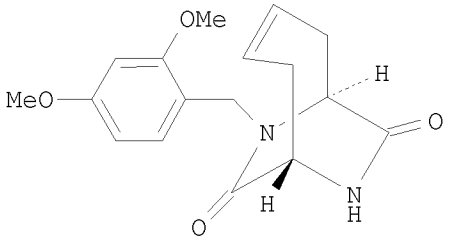
L2 ANSWER 66 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33768 CASREACT
TITLE: Preparation of bridged aryl piperazines derivatives useful for the treatment of CNS, gastrointestinal and reproductive disorders
INVENTOR(S): Creighton, Christopher John; Ross, Tina Morgan; Reitz, Allen B.; Kordik, Cheryl P.; Paget, Steven
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 122pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007137168	A2	20071129	WO 2007-US69256	20070518
WO 2007137168	A3	20080912		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20080070919	A1	20080320	US 2007-750629	20070518
PRIORITY APPLN. INFO.:			US 2006-801439P	20060518

OTHER SOURCE(S): MARPAT 148:33768
GI



I

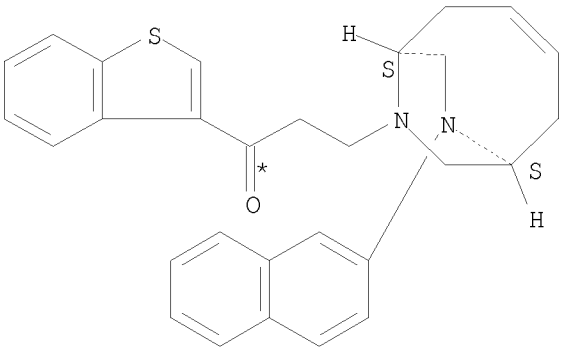


II

AB Title compds. represented by the formula I [wherein m = 0 or 1; L1, L2 = independently -alkyl-, -CH2-alkenyl-, -CH2-alkynyl-, etc.; R1, R2 = H, (cyclo)alkyl, aryl, etc.; n = 0 or 1; and pharmaceutically acceptable salts thereof] were prepared as serotonin transport inhibitors and/or modulators of 5HT1A. For example, II was provided in a multi-step synthesis starting from the reaction of allylglycine Me ester with 2,4-dimethoxybenzaldehyde. I were tested for radioligand binding to the human 5-HT1A receptor and to human 5-HTT, and for [35S]GTPγS binding of 5-HT1A receptor activation and inhibition. Thus, I and their

pharmaceutical compns. are useful for the treatment of depression and related disorders.

RX(25) OF 463 ...BJ ===> BM



BJ

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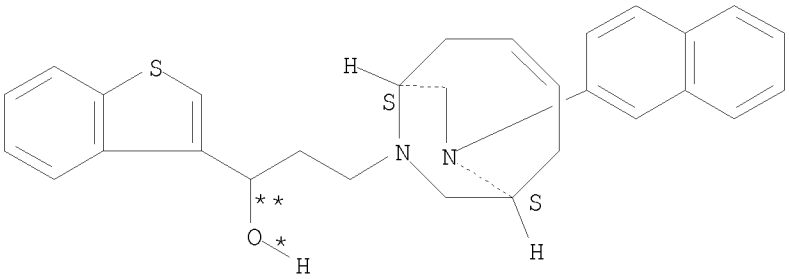

BM

RX(25) RCT BJ 959407-64-8
RGT BN 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
PRO BM 959407-65-9
SOL 67-56-1 Methanol
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 1 hour, room temperature

L2 ANSWER 67 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33613 CASREACT
TITLE: Preparation of duloxetine and intermediates
INVENTOR(S): Ini, Santiago; Abramov, Mili
PATENT ASSIGNEE(S): Israel
SOURCE: U.S. Pat. Appl. Publ., 7pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070281989	A1	20071206	US 2007-809730	20070531
WO 2007143065	A2	20071213	WO 2007-US12892	20070531
WO 2007143065	A3	20080515		
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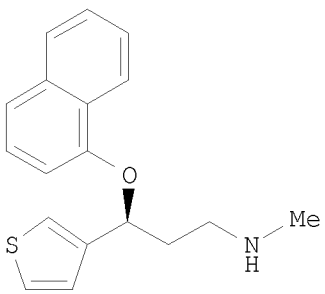
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
EP 1976846	A2	20081008	EP 2007-795573	20070531
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
US 20080207923	A1	20080828	US 2007-981318	20071030
MX 2008001519	A	20080829	MX 2008-1519	20080130

PRIORITY APPLN. INFO.:
US 2006-809977P 20060531
US 2005-719880P 20050922
US 2006-761583P 20060123
US 2006-771069P 20060206
US 2006-525336 20060921
US 2007-809730 20070531
WO 2007-US12892 20070531

GI

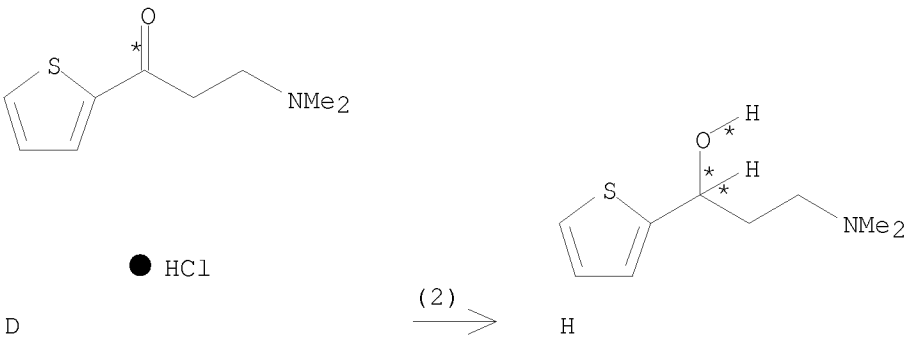


I

AB Processes for preparing CP duloxetine free of the impurity DLX-ISO3 (I) and CP duloxetine intermediates are provided. Duloxetine is prepared starting from 2-acetylthiophene by a series of reactions including reaction of 1-fluoronaphthalene and the intermediate

(+)-N,N-dimethyl-3-(1-naphthalenyloxy)-3-(2-thienyl)propanamine.

RX(2) OF 21 ...D ===> H...

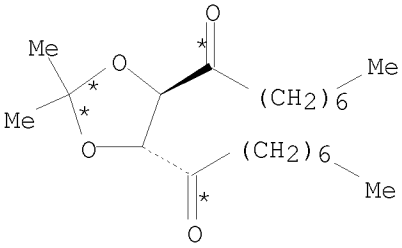


D H

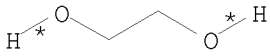
RX(2) RCT D 5424-47-5
RGT I 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1), J 1310-73-2
Sodium hydroxide (Na(OH))
PRO H 13636-02-7
SOL 7732-18-5 Water, 67-56-1 Methanol
CON SUBSTAGE(1) room temperature -> 0 deg C
SUBSTAGE(2) pH 10
SUBSTAGE(4) overnight, room temperature

L2 ANSWER 68 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33577 CASREACT
TITLE: Polysubstituted Oxygen Heterocycles by a Reformatsky-Type Reaction/Reductive Cyclization Approach from Enantiopure β-Ketosulfoxides
AUTHOR(S): Colobert, Francoise; Choppin, Sabine; Ferreiro-Mederos, Leticia; Obringer, Michel; Luengo Arratta, Sandra; Urbano, Antonio; Carreno, M. Carmen
CORPORATE SOURCE: Laboratoire de Stereochimie, CNRS, UMR, Universite Louis Pasteur, ECPM, Strasbourg, 67087, Fr.
SOURCE: Organic Letters (2007), 9(22), 4451-4454
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The stereoselective synthesis of tetrasubstituted tetrahydrofurans and trisubstituted tetrahydropyrans bearing a sulfoxide moiety was achieved by reductive cyclization (Et3SiH/TMSOTf) of the corresponding enantiopure hydroxy ketones protected as dioxolanes. The latter are easily accessible from a Reformatsky-type reaction between α-bromo-α'-sulfinyl ketones and protected α- or β-ketoaldehydes, followed by diastereoselective reduction of the resulting β-ketosulfoxide.

RX(40) OF 193 COMPOSED OF RX(9), RX(10)
RX(40) AB + 2 J ===> AG

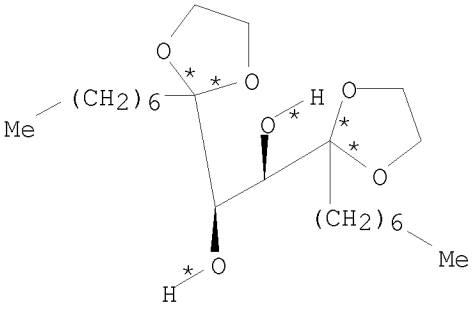


AB



2 J

2 STEPS



AG
YIELD 74%

RX(9) RCT AB 887915-40-4
RGT AF 76-05-1 Acetic acid, 2,2,2-trifluoro-

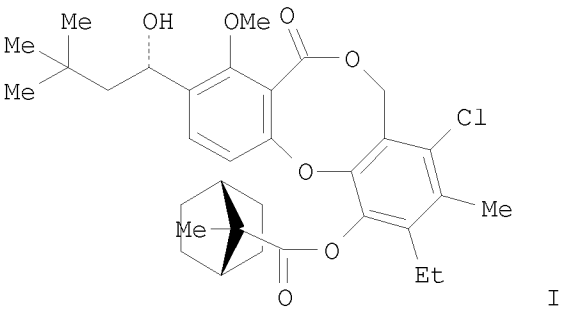
```
          PRO  AE 887915-42-6
          SOL  7732-18-5 Water
          CON  2 hours, 0 deg C

RX(10)    RCT  AE 887915-42-6, J 107-21-1
          PRO  AG 887915-44-8
          CAT  104-15-4 Benzenesulfonic acid, 4-methyl-
          SOL  71-43-2 Benzene
          CON  16 hours, reflux
          NTE  azeotropic water removal
REFERENCE COUNT:         60    THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

L2 ANSWER 69 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:33538 CASREACT
TITLE: Method for synthesis of Penicillide derivative
INVENTOR(S): Lin, Guoqiang; Sun, Zhihua; Qi, Chuangyu; Sun, Xun
PATENT ASSIGNEE(S): Fudan University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 20pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101066967	A	20071107	CN 2006-10119528	20061212

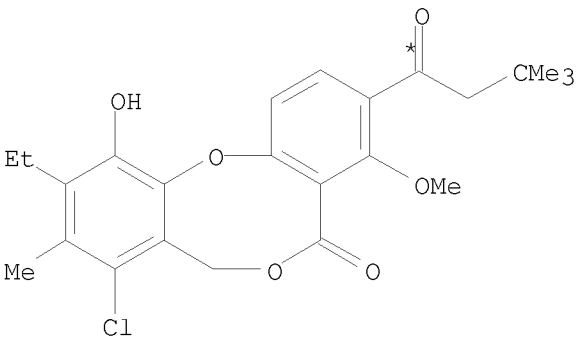
PRIORITY APPLN. INFO.: CN 2006-10119528 20061212
GI



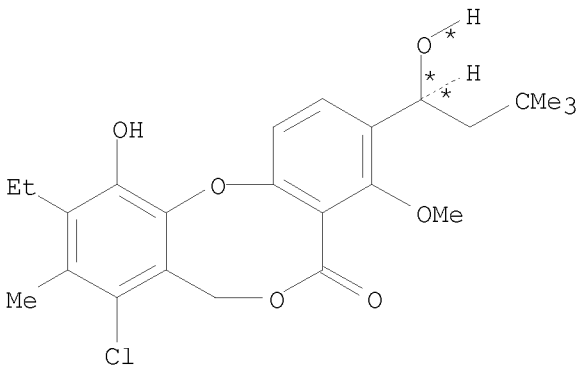
I

AB Penicillide derivative I, a cholesteryl ester transfer protein inhibitor, was synthesized from 3-benzyloxy-2-hydroxy-5-methylbenzoic acid via chlorination, hydrogenation, coupling reaction, chiral resolution and acylation in twelve steps to provide the target product.

RX(12) OF 72 ...AQ ===> AR...



AQ (12) ⟶



AR
YIELD 95%

RX(12)

STAGE(1)
RGT AS 22348-32-9 2-Pyrrolidinemethanol, α,α-diphenyl-, (2R)-, AT 14044-65-6 Boron, trihydro(tetrahydrofuran)-, (T-4)-
SOL 109-99-9 Furan, tetrahydro-
CON SUBSTAGE(1) 0.5 hours, reflux
SUBSTAGE(2) reflux -> room temperature

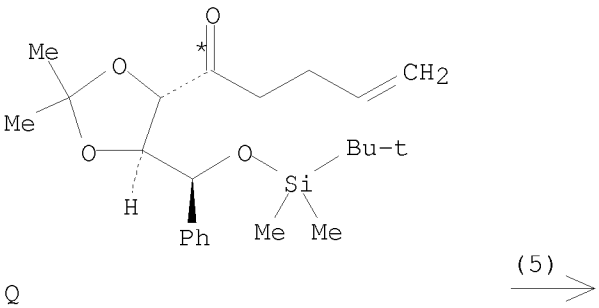
STAGE(2)
RCT AQ 959123-82-1
CON 4 hours, room temperature

STAGE(3)
RGT F 7732-18-5 Water

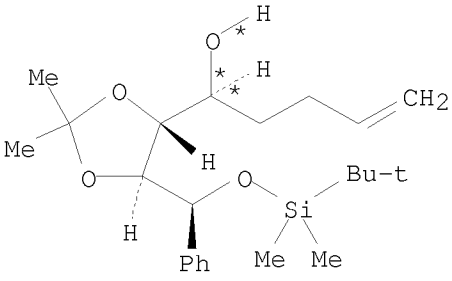
PRO AR 905829-62-1
NTE stereoselective, ee 50.4%

L2 ANSWER 70 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 148:11417 CASREACT
TITLE: Stereoselective Total Synthesis of Bioactive Styryllactones (+)-Goniofufurone, (+)7-epi-Goniofufurone, (+)-Goniopypyrone, (+)-Goniotriol, (+)-Altholactone, and (-)-Etharvensin
AUTHOR(S): Prasad, Kavirayani R.; Gholap, Shivajirao L.
CORPORATE SOURCE: Department of Organic Chemistry, Indian Institute of Science, Bangalore, 560012, India
SOURCE: Journal of Organic Chemistry (2008), 73(1), 2-11
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Stereoselective total synthesis of biol. active styryllactones 7-epi-goniofufurone, goniofufurone, goniopypyrone, goniotriol, altholactone, and etharvensin was achieved in high overall yields from a common intermediate derived from D-(-)-tartaric acid. It is based on the utility of a masked tetrol, comprising an alkene tether and four contiguous hydroxy groups. The pivotal reaction sequence involves hydroxy-directed lactonization via the oxidation of alkene, and subsequent elaboration to styryllactones. The masked tetrol was prepared by the extension of γ-phenyl-γ-hydroxy butyramide, readily obtained from the bis-dimethylamide of tartaric acid, employing a combination of selective Grignard addns. and a stereoselective reduction

RX(5) OF 313 ...Q ===> R...



Q



R
YIELD 96%

RX(5) RCT Q 868761-57-3

```
            STAGE(1)
               RGT  S 38721-52-7 Borate(1-), hydrotris(1-methylpropyl)-,
                    lithium (1:1), (T-4)-
               SOL  109-99-9 Furan, tetrahydro-
               CON  SUBSTAGE(1) room temperature -> -78 deg C
                    SUBSTAGE(2) 1 hour, -78 deg C
                    SUBSTAGE(3) -78 deg C -> 0 deg C

            STAGE(2)
               SOL  7732-18-5 Water
               CON  SUBSTAGE(1) 0 deg C
                    SUBSTAGE(2) 30 minutes, 0 deg C

          PRO  R 868761-58-4
          NTE  stereoselective
REFERENCE COUNT:         46    THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

L2 ANSWER 71 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 147:541715 CASREACT
TITLE: process for the preparation of (+)-duloxetine via resolution of (±)-N-methyl duloxetine
INVENTOR(S): Poggiali, Andrea; Pizzocaro, Francesco; Tubertini, Paolo
PATENT ASSIGNEE(S): Solmag S.p.A., Italy
SOURCE: Eur. Pat. Appl., 9pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

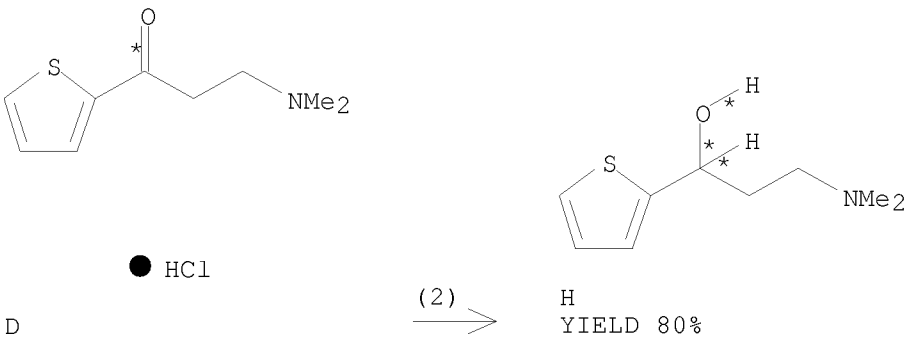
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1857451	A1	20071121	EP 2006-9313	20060505

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU

PRIORITY APPLN. INFO.: EP 2006-9313 20060505

AB A process for the preparation of (+)-duloxetine or an acid addition salt thereof comprises resolving (±)-N-Me duloxetine with a less than stoichiometric amount of a chiral acid in combination with suitable amts. of a hydrohalic acid to give a salt of the chiral acid and (+)-N-Me duloxetine substantially free from (-)-N-Me duloxetine, and demethylation of the (+)-N-Me duloxetine. Thus, (±)-N-Me duloxetine oxalate (preparation given) was free-based and treated with D-tartaric acid in EtO H to give 30% (+)-N-Me duloxetine D-tartrate. The latter was free-based and treated with Ph chloroformate and diisopropylethylamine in PhMe to give 55% (+)-duloxetine as the oxalate.

RX(2) OF 15 ...D ===> H...



RX(2) RCT D 5424-47-5

STAGE(1)
RGT I 1310-73-2 Sodium hydroxide (Na(OH))
SOL 7732-18-5 Water
CON room temperature

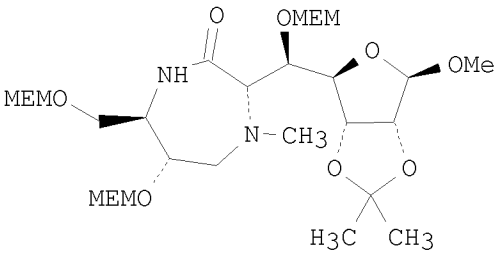
STAGE(2)
RGT J 16940-66-2 Borate(1-), tetrahydro-, sodium (1:1)
SOL 7732-18-5 Water, 67-63-0 2-Propanol
CON SUBSTAGE(1) 20 - 35 deg C

SUBSTAGE(2) 8 hours, 20 - 35 deg C

PRO H 13636-02-7

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

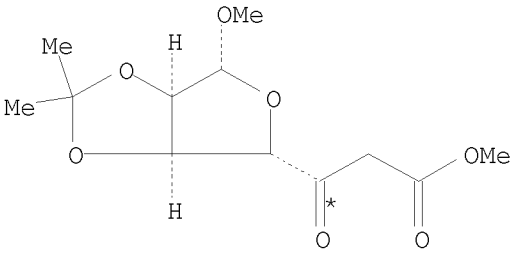
L2 ANSWER 72 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 147:522504 CASREACT
TITLE: Synthetic route towards (5R,2'S,5'S,6'S)-ribosyl-diazepanone, an analogue core of the liposidomycins
AUTHOR(S): Drouillat, Bruno; Bourdreux, Yann; Perdon, Delphine; Greck, Christine
CORPORATE SOURCE: Institut Lavoisier de Versailles, UMR CNRS 8180, Universite de Versailles St-Quentin-en-Yvelines, Versailles, 78035, Fr.
SOURCE: Tetrahedron: Asymmetry (2007), 18(16), 1955-1963
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



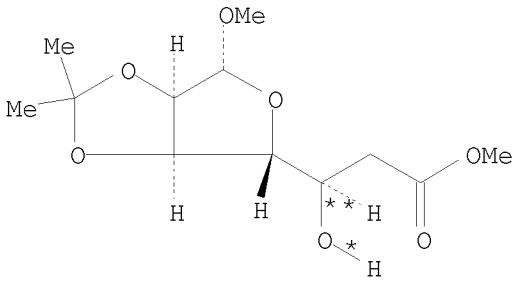
I

AB The synthesis of (5R,2'S,5'S,6'S)-ribosyl-diazepanone I, an analog core of liposidomycins is described. The core ribosyl seven-membered heterocycle of nucleoside antibiotic liposidomycins was formed by reductive amination of an α-ribosylamino ester derived from D-ribose, and an amino aldehyde derived from Me 4-triisopropylsilyloxy-3-oxobutanoate, followed by a peptidic coupling reaction.

RX(2) OF 322 ...C ===> H...



C (2) →

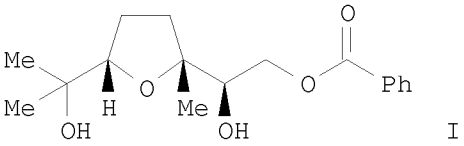


H
YIELD 94%

RX(2) RCT C 566198-49-0
RGT I 1333-74-0 Hydrogen
PRO H 99441-06-2
CAT 125992-12-3 Ruthenium, [(1S)-[1,1'-binaphthalene]-2,2'-diylbis[diphenylphosphine-κP]]dibromo-, (SP-4-2)-
SOL 67-56-1 Methanol
CON 16 hours, room temperature
NTE stereoselective

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

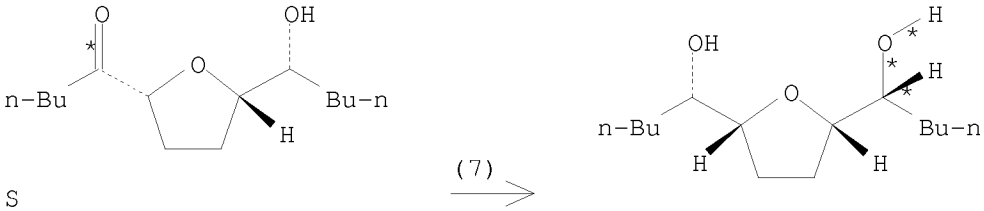
L2 ANSWER 73 OF 73 CASREACT COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 147:522032 CASREACT
TITLE: Multigram synthesis of diastereomerically pure tetrahydrofuran-diols
AUTHOR(S): Goehler, Sabrina; Roth, Stefanie; Cheng, Huan; Goeksel, Huelya; Rupp, Alexander; Haustedt, Lars O.; Stark, Christian B. W.
CORPORATE SOURCE: Institut fuer Chemie und Biochemie, Freie Universitaet Berlin, Berlin, 14195, Germany
SOURCE: Synthesis (2007), (17), 2751-2754
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB A highly efficient protocol for the large-scale oxidative cyclization of 1,5-dienes is described. This convenient ruthenium(VIII)-catalyzed (0.2 mol%) cyclization reaction allowed the preparation of cis-2,5-disubstituted tetrahydrofurans, e.g., I, in high yields (up to 92%) and excellent diastereomeric ratio (>95:5 dr). This simple and reliable method is insensitive to moisture and air and can, therefore, be carried out in an open reaction vessel.

RX(7) OF 8 ...S ===> R



S

R
YIELD 95%

RX(7) RCT S 870097-60-2
RGT T 38721-52-7 Borate(1-), hydrotris(1-methylpropyl)-, lithium (1:1), (T-4)-
PRO R 153833-12-6
SOL 109-99-9 Furan, tetrahydro-
CON -78 deg C
NTE stereoselective
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -56.94     -56.94

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